BEXT

San Diego

California

Bob Boethme

Shop
619-448-2651

Repair

BEXT REFERENCES

These users have made themselves available to discuss BEXT's quality, reliability and service.

ALASKA
- CH8 TV — Unalaska (PTX 20)
  Bob Adams 907-581-1888

ARIZONA
- KJZZ — Phoenix (PTX 20)
  Dennis Gilliam 602-834-5627

CALIFORNIA
- KFRG — San Bernardino (PTX 80, Composite STL System)
  Dave Petric 714-871-9410
- KSAK — Walnut (Tex 20)
  Bill Watson 714-595-9164
- KXXZ — Hellendale (T 1800)
  Joe Talbot 619-243-5500

COLORADO
- KJOL/ KWBI — Grand Junction (PTX 20)
  Al Stewart 303-697-5924
- KXKL — Denver (TEX 20, T 800)
  Paul Montoya 303-832-5665

CONNECTICUT
- WINE — Brookfield (T 1500, PTX 20, PJ 250)
  Patrick Carlone 203-775-1212

FLORIDA
- WCMQ — Miami (PTX 20)
  Ralph Chambers 305-854-1830

GEORGIA
- WADX — Trenton (Composite STL System, PJ 500, Tex 20)
  Phil Patton 404-657-7594

HAWAII
- KPOA — Lahaina, Maui (PTX 80)
  Chuck Gardiner 808-667-9110

ILLINOIS
- WBZM — Peoria Heights (TEX 20)
  William Bro 309-688-8022

MICHIGAN
- WKKM — Harrison (PTX 20)
  Dave Carmine 517-539-7105
- WOCR — Olivet (PJ 250)
  Stewart Blacklaw 616-749-7598

MISSISSIPPI
- WBLE — Batesville (PTX 20, PJ 250)
  J Boyd Ingram 601-563-4664
- WVIM — Coldwater (TEX 20)
  Charles Windgate 601-429-4465
  Jerry Campbell 601-232-5506
- WURC — Holly Springs (PJ 500)
  Jerry Campbell (WUMS, University)
  601-232-5506

MISSOURI
- KDBB — Flat River (Composite STL System, T 1800)
  Mark Jones 314-431-1000

MONTANA
- KYSS — Missoula (LCR FM Composite Receiver)
  Mark Ward or Jim Christie 406-728-9300

NEW MEXICO
- KIVA — Albuquerque (PTX 80)
  Bill Major 505-897-6937
- KKOR/ KYVA — Gallup (TEX 20)
  Tim Sanders 505-863-6851

NEW YORK
- WDTS — Woodstock (TEX 20)
  Peter Moncure 914-679-7266
- WNEW — New York City (TEX 20)
  Jerry Turo 212-286-1130
- WSLU — Canton (RXG Receiver, TEX 20)
  Bob Sauter 315-379-5356

OHIO
- WCVO — New Albany (TEX 20, PTX 80, Composite SD-STL System)
  John McKinley 614-475-1747
- WRBZ — Milford (TEX 20)
  Jim Gray 606-781-5715

OREGON
- KKRB — Klamath Falls (PTX 30, PJ 250)
  Jim Winstrom 503-882-4656

PENNSYLVANIA
- WALY — Altoona (PJ 500)
  Terry Mac Alarney 814-944-2221

RHODE ISLAND
- WQRI — Bristol (PJ 250)
  Ted Morgan 401-253-0350

SOUTH CAROLINA
- WCEZ — Columbia (PJ 500)
  John George 803-772-5600

TENNESSEE
- WBDX — Chattanooga (T 1200, TEX 20, PJ 500, STL System)
  Phil Patton 615-899-5111 or 615-942-5611

TEXAS
- KGNZ — Abilene (PTX 80, LC- STL Receiver)
  James Thompson 915-695-7046
- KITE — Kerrville (PJ 250)
  Ron Whitlock 512-792-4560

VERMONT
WMXR Woodstock (PTX 20)
Rob Wolf 802-457-9494

WASHINGTON
KXAA Wenatchee (TEX 20)
Tom Read 509-448-7400

WEST VIRGINIA
WJJB Romney (T 1200, PTX 80)
Warren Gregory 304-822-3885 or 203-364-5659

TELEVISION EQUIPMENT USERS

CALIFORNIA
KFTL-TV San Leandro (NS 100)
Matt Tuter 415-632-5385

K67DY-TV Paradise (NS 1000S)
Ron Warkenten 916-877-3872

COLORADO
CH 69 Colorado Springs (NS 1000S)
Jack Connelly 719-574-7777 or -7776

ILLINOIS
W57AO-TV Robinson (NS 1000S)
Larry Boyd 618-544-3394

NEBRASKA
KTVG-TV Lincoln (NS 1000S)
Steve Kafka 402-476-6000

NEW JERSEY
CHN 36 New Brunswick (NS 1000S)
Mark Simpson 908-249-2600 ext 215

OHIO
W17AY-TV Seaman (NS 1000S)
Shirley York 513-544-2973

INTERNATIONAL REFERENCES

ANTIGUA
GEM 94 (TEX 20)

AUSTRALIA
GROUP BROADCASTING SERVICES PTY LTD
Wonga Park, Victoria
Herb Lilburn (1.5 W STL System)
03-722-1900 FAX 03-722-1970

BAHAMAS
BROADCASTING CORP OF BAHAMAS
(PTX 80, PJ 500, PJ 250)

CANADA
MARUNO ELECTRONICS (PJ 500)
Toronto, Ontario
Bob Burger 416-255-8231

CHILE
SOQUIMICHI DE CHILE
(PJ 250, PTX 20)

GRAND CAYMAN
RADIO CAYMAN
(TEX 20, TEX 20)

GUATEMALA
FM GLOBO
(PTX 20)

ORGANIZACION ALIUS
(PTX 20)

RADIO MUNDIAL
(TEX 20, TEX 20)

RADIO METROPOLITANA
(PJ 1000, PTX 20)

RADIO CLASE
(PTX 80)

HAITI
RADIO CAP HAITIEN
(PTX 80)

RTHN
(PTX 20)

HONDURAS
SONORAMA MUSICA AMBIENTAL
(TEX 20)

RADIO EXCELSIOR
(TEX 20)

JAMAICA
RADIO JAMAICA
(PTX 80, PJ 1000)

MEXICO
RADIO SONORA, SONORA
(PTX 20 Stereo Generator)

MONTSERRAT
(TEX 20)

PERU
EMPRESA DIFUSORA RADIO TELE
(TEX 20)

STUDIO 5
(PTX 20)

SOUTH AFRICA
TELEMEDIA PTY LTD
Sandton, Republic of South Africa
Peter Bretherick
(TEX 20, PJ 100, PJ 250)
27-11-803-3353 Fax 27-11-803-2534

BEXT's lab direct line is 619-448-2651. You can also page BEXT's field support services at 619-529-4711 (after the beep, enter your area code and phone number) 24 hours a day, 365 days a year.

Located only minutes away from San Diego's International airport, BEXT has the ability and commitment to help the customer well beyond the standard practice in the industry. That means you will receive customer service that is harder and harder to match.

619-239-8462
FAX: 619-239-8474

BEXT

P2 / P10

Programmable FM Exciters

- Instant front panel programmability in 10 KHz increments
- Extremely compact and lightweight
- 12 VDC operation
- Accommodates additional microphone for local input
- Low power consumption
- Meets or exceeds all FCC and CCIR requirements
- Ideal portable unit for emergency backup and solar or battery powered operation

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FAX: 619-239-8474

739 Fifth Avenue
San Diego, CA 92101 USA

Technical Specifications

BEXT

P2 / P10

Rated Output Power:
Model P2: 1 to 1.5W ± 10% dependent on and proportionate to supplied DC voltage. (12 to 13.8VDC allowable)
Model P10: 2.5 /10W switchable ± 10% dependent on and proportionate to supplied DC voltage. (12 to 13.8VDC allowable)

RF Output Connector / Impedance:
50239 (PL) type connector / 50 ohm

Frequency Range:
87.5 MHz to 108 MHz

Frequency Programmability:
Direct from front panel in 100 KHz increments plus internal jumper for 50 KHz increments

Frequency Stability:
Better than ± 500 Hz

Spurious Harmonic Suppression:
Meets or exceeds all FCC and CCIR requirements

Modulation Capability:
Meets or exceeds all FCC and CCIR requirements

AM Noise Parameters also affected by the DC power source used:
Asynchronous AM S/N Ratio: Better than 75 dB below reference carrier with 100% amplitude modulation at 400 KHz, without de-emphasis, FM modulation + ± 75 KHz at 400 Hz
Synchronous AM S/N Ratio: Better than 60 dB below reference carrier with 100% amplitude modulation at 400 KHz, without de-emphasis, FM modulation + ± 75 KHz at 400 Hz

Stereo Separation:
45 dB or better

Ambient Temperature Range:
0° C to 45° C (32° F to 113° F)

Pre-emphasis:
For FCC, 75 microsec
For CCIR, 50 microsec

Audio Inputs:
One XLR male balanced or unbalanced, switchable by internal jumper, which can be used either for composite/wideband operation or microphone operation (switchable from front panel). Approximate input level for composite/wideband operation, 0 dBm (775 mV RMS / 2.2 V P-P) for 100% modulation. Unit has built-in mic preamp and limiter. Total deviation is adjustable from the front panel.

S/N Ratio:
> 70 dB below ±75 KHz deviation at 400 Hz measured in a 30 Hz to 20 KHz bandwidth with 75 microsec de-emphasis (RMS)

Amplitude Response:
±0.5 dB or better, 30 Hz to 15 KHz
±1 dB or better, 30 Hz to 100 KHz

Total Harmonic Distortion:
0.5% or better

DC Power Requirements:
P2: 12 to 13.8 VDC, 1 A (approximate)
P10: 12 to 13.8 VDC, 2.2 A (approximate) at 10 W or 1.3 A (approximate) at 2.5 W

Dimensions:
145 mm x 70 mm x 330 mm
(5 3/4" x 2 3/4" x 13 1/4")

Weight:
P2: 2.5 Kg (5 1/2 lbs)
P10: 2.7 Kg (6 lbs)

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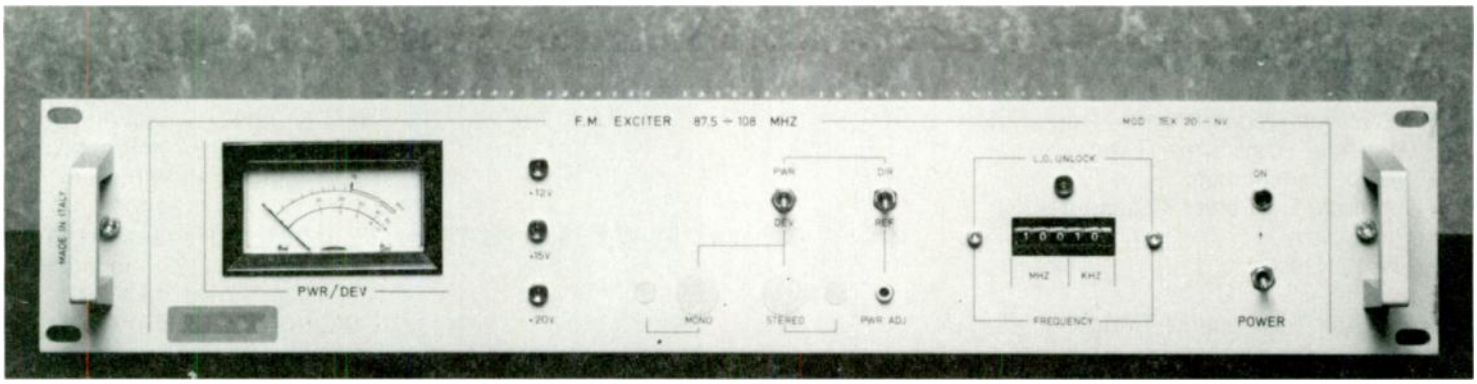
San Diego, CA 92101 USA

BEXT

TEX 20

Phase Locked Loop Programmable FM Exciter, 87.5 - 108 MHz Range



- Instant front panel programmability in 10 KHz increments
- Soft-start from RF mute status
- Adjustable power output from 2 to 20 W with automatic power control maintaining the output at any pre-set level
- Main parameters available also on rear terminal board for remote control
- Compatibility with external references for custom phase locking in synchronous applications
- Meets or exceeds all FCC and CCIR requirements
- High reliability provided by conservatively rated components
- Modular layout with plug-in, easy replaceable circuits and parts
- 24 VDC capability

~~2795~~ 2495.00

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Technical Specifications

BEXT

TEX 20 Programmable FM Exciter

General

- Rated Output Power: 2-20 W continuously variable (A L C)
- RF Output Connector: "N" type
- RF Output Impedance: 50 Ohm
- Frequency Range: 87.5 MHz to 108 MHz
- Frequency Programmability: direct from front panel in 10 KHz increments
- Frequency Stability: better than +/- 500 Hz
- Modulation Type: direct carrier frequency modulation
- Spurious & Harmonic Suppression: meets or exceeds all FCC and CCIR requirements
- Asynchronous AM S/N Ratio: 65 dB below reference carrier with100% amplitude modulation at 400 Hz. Without de-emphasis, no FM modulation present
- Synchronous AM S/N Ratio: 55 dB or better below reference carrier with 100% amplitude modulation at 400 Hz, without de-emphasis, FM modulation = +/- 75 KHz at 400 Hz
- Transient Intermodulation Distortion: less than 0.1% measured with a 3.18 KHz square wave and a 15 KHz sine wave at 100% modulation (typical 0.05%)
- AC Power Requirement: 117 or 230 V, +/- 10%, 50-60 Hz, single phase
- Available Transformer Taps: 100, 120, 220, and 240 V
- Power Consumption: approx 130 W from AC
- Alternate DC Power Requirement: 24 VDC, 4A
- Panel Size: 483 mm (19") W x 88 mm (3 1/2")H (2 standard rack spaces high)
- Overall Depth: 327 mm (13")
- Weight: 7 Kg (15 1/2 lbs)
- Ambient Temperature Range: 0 C to 45 C (32 F to 113 F)
- Pre-emphasis: for FCC 75 microsec, for CCIR 50 microsec

Composite Operation

- Composite Inputs: four total, 1 for MPX and 3 for SCA
- MPX Input: 1 unbalanced BNC connector
- MPX Input Impedance: 10 Kohm
- MPX Input Level: 0 dBm (775 mV RMS/2.2 V P-P)
- Composite FM S/N ratio: > 75 dB below +/- 75 KHz deviation at 400 Hz measured in a 30 Hz to 100 KHz bandwidth with 75 microsecond de-emphasis (RMS)
- Composite Amplitude Response: +/- 0.8 dB, 30 Hz to 100 KHz
- Composite Total Harmonic Distortion: < 0.1% (0.05% typical)
- Composite Intermodulation Distortion: 0.05% or less, measured with a 1 KHz and a 1.3 KHz tones, 1:1 ratio, at 100% modulation
- Stereo Separation: > 40 dB (45 dB typical)
- Crosstalk: main to stereo subchannel and stereo subchannel to main >55 dB (60 dB typical)
- SCA Inputs: 3 unbalanced BNC connectors
- SCA Input Impedance: 10 Kohm
- SCA Input Levels: 0 dBm (775 mV RMS/2.2 V P-P) nominal for +/- 7.5 KHz deviation, adjustable
- SCA Amplitude Response: +/- 0.8 dB, 40 KHz to 100 KHz
- Crosstalk: 67 KHz SCA to main or to stereo subchannel >65 dB
- Crosstalk: 92 KHz SCA to main or to stereo subchannel >70 dB

Monaural Operation

- Audio Input Impedance: 600 Ohm balanced or unbalanced; 50 dB common mode suppression
- Audio Input Level: 0 dBm (775 mV RMS/2.2 V P-P) for +/- 75 KHz, adjustable
- FM S/N Ratio: > 70 dB below +/- 75 KHz, deviation at 400 Hz measured in a 30 Hz to 20 KHz bandwidth with 75 microsecond de-emphasis (RMS)
- Audio Frequency Response: +/- 0.8 dB, 30 Hz to 15 KHz
- Total Harmonic Distortion: < 0.1% (0.05% typical)
- Intermodulation Distortion: 0.05% or less, measured with a 1 KHz and a 1.3 KHz tones, 1:1 ratio, at 100% modulation

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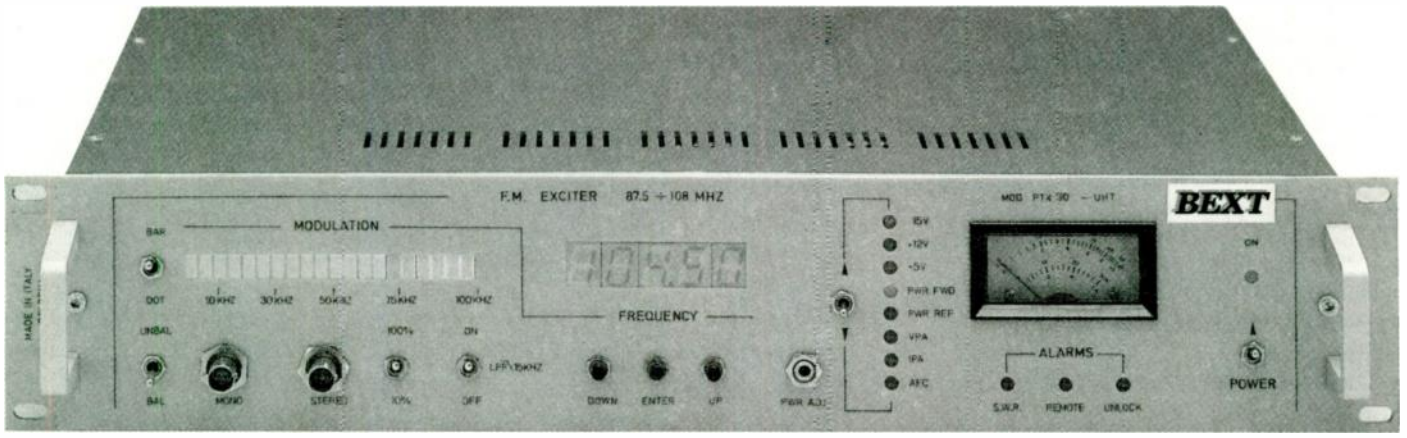
Features and specifications subject to change without notice.

BEXT

PTX 30

Programmable FM Exciter



- Direct and easy frequency programmability through microprocessor controlled 10 KHz steps
- Excessive SWR automatic protection with RF power cutback and indicator light
- Two to 30 W continuously adjustable output power with automatic power level control
- Expanded reflected power scale
- Display of all operating parameters: forward power, reflected power, DC voltages, PA current, PLL voltage
- Remote controlled RF mute, compatible with all types of external requirements
- LED modulation meter with peak indicator and expanded scale for stereo or SCA subcarrier readings
- Selectable linear input or 15 KHz low-pass filter mono input
- Wideband MPX input >100 KHz
- Available with RS 232 interface for frequency programmability and RF mute
- Available with three additional SCA inputs and rear terminal board with all main parameters
- Modular layout with internal flat cables and connectors

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FAX: 619-239-8474

Technical Specifications

BEXT

PTX 30 Programmable FM Exciter

General

• Rated Output Power:	2-30 W continuously variable (A L C)
• RF Output Connector:	"N" type
• RF Output Impedance:	50 Ohm
• Frequency Range:	87.5 MHz to 108 MHz
• Frequency Programmability:	direct from front panel in 10 KHz increments
• Frequency Stability:	better than +/- 500 Hz
• Modulation Type:	direct carrier frequency modulation
• Spurious & Harmonic Suppression:	meets or exceeds all FCC and CCIR requirements
• Asynchronous AM S/N Ratio:	65 dB below reference carrier with 100% amplitude modulation at 400 Hz. Without de-emphasis, no FM modulation present
• Synchronous AM S/N Ratio:	55 dB or better below reference carrier with 100% amplitude modulation at 400 Hz, without de-emphasis, FM modulation = +/- 75 KHz at 400 Hz
• Transient Intermodulation Distortion	less than 0.1% measured with a 3.18 KHz square wave and a 15 KHz sine wave at 100% modulation (typical 0.05%)
• AC Power Requirement:	117 or 230 V, +/- 10%, 50-60 Hz, single phase
• Available Transformer Taps:	100, 120, 220, and 240 V
• Power Consumption:	approx 180 W from AC
• Panel Size:	483 mm (19") W x 88 mm (3 1/2") H (2 standard rack spaces high)
• Overall Depth:	327 mm (13")
• Weight:	8 Kg (17 1/2 Lbs)
• Ambient Temperature Range:	0 C to 45 C (32 F to 113 F)
• Pre-emphasis:	for FCC: 75 microsec; for CCIR: 50 microsec

Composite Operation

• Composite Inputs:	four total, 1 for MPX and 3 for SCA
• MPX Input:	1 unbalanced BNC connector
• MPX Input Impedance:	10 Kohm
• MPX Input Level:	0 dBm (775 mV RMS/2.2 V P-P)
• Composite FM S/N ratio:	> 85 dB below +/- 75 KHz deviation at 400 Hz measured in a 30 Hz to 100 KHz bandwidth with 75 microsecond de-emphasis (RMS)
• Composite Amplitude Response:	+/- 0.5 dB, 30 Hz to 100 KHz
• Composite Total Harmonic Distortion:	< 0.05% (0.02% typical)
• Composite Intermodulation Distortion:	0.05% or less, measured with a 1 KHz and a 1.3 KHz tone, 1:1 ratio, at 100% modulation
• Stereo Separation:	> 45 dB (50 dB typical)
• Crosstalk:	main to stereo subchannel and stereo subchannel to main >55 dB (60 dB typical)
• SCA Inputs:	3 unbalanced BNC connectors
• SCA Input Impedance:	10 Kohm
• SCA Input Levels:	0 dBm (775 mV RMS/2.2 V P-P) nominal for +/- 7.5 KHz deviation, adjustable
• SCA Amplitude Response:	+/- 0.5 dB, 40 KHz to 100 KHz
• Crosstalk:	67 KHz SCA to main or to stereo subchannel >65 dB
• Crosstalk:	92 KHz SCA to main or to stereo subchannel >70 dB

Monaural Operation

• Audio Input Impedance:	600 Ohm balanced or unbalanced; 50 dB common mode suppression
• Audio Input Level:	0 dBm (775 mV RMS/2.2 V P-P) for +/- 75 KHz, adjustable
• FM S/N Ratio:	> 75 dB below +/- 75 KHz, deviation at 400 Hz measured in a 30 Hz to 20 KHz bandwidth with 75 microsecond de-emphasis (RMS)
• Audio Frequency Response:	+/- 0.5 dB, 30 Hz to 15 KHz
• Total Harmonic Distortion:	< 0.05% (0.03% typical)
• Intermodulation Distortion:	0.05% or less, measured with a 1 KHz and a 1.3 KHz tone, 1:1 ratio, at 100% modulation

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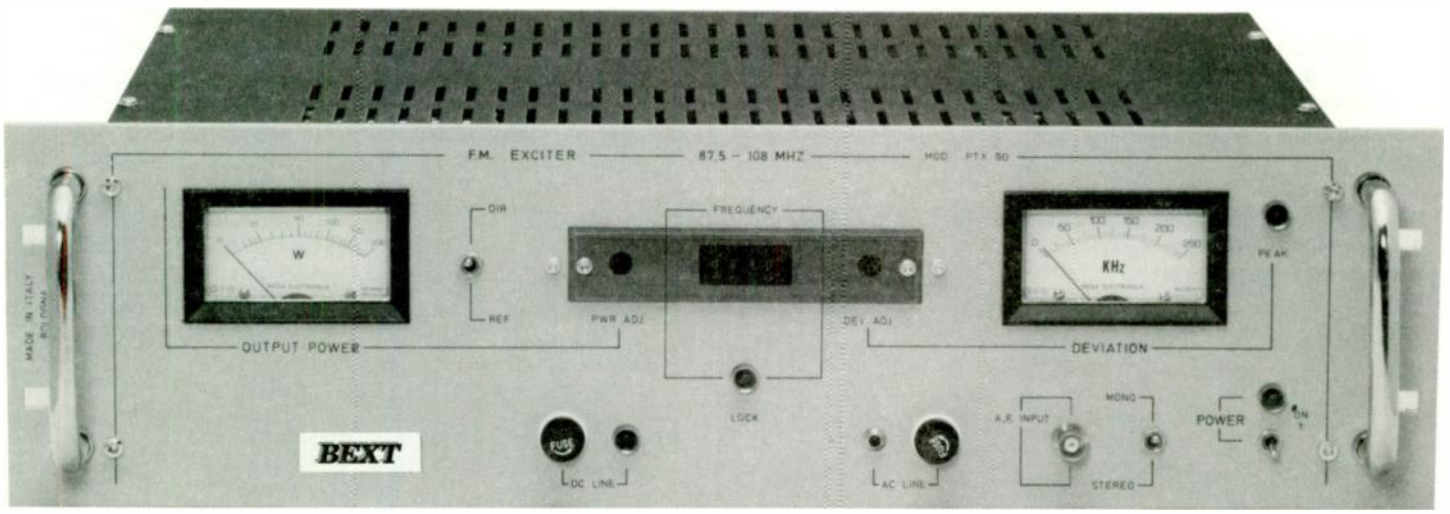
PTX 80

Phase Locked Loop FM Exciter Mono or Stereo, 87.5 - 108 MHz Range



- High power output capability in compact size cabinet
- High modulation capability
- Ultra linear modulated oscillator which provides superior performance in any stereo and/or SCA transmission
- Direct and easy programmable frequency via thumbwheel switches
- Broadband solid state chain amplifier which provides full power over entire FM band without tuning requirements
- Adjustable power output from 5 to 80 W
- Meets or exceeds all FCC and CCIR requirements
- Convenient display of all operating parameters through complete yet simplified front control panel
- High reliability provided by conservatively rated components
- Easily replaceable standard components

619-239-8462
FAX: 619-239-8474

Technical Specifications

BEXT

PTX 80 Programmable FM Exciter

• Power Output:	5 - 80 w continuously variable
• Frequency Range:	87.5 - 108 MHz directly programmable in 100 KHz increments (others on request)
• RF Output Impedance:	50 Ohm, N connector
• Frequency Stability:	+/- 500 Hz 0 to 50 C (Typ +/- 300)
• Modulation Capability, Spurious and Harmonic Suppression:	exceeds all FCC and CCIR requirements
• Pre-emphasis (specify):	for FCC: 75 microsec; for CCIR: 50 microsec
• AC Input Power:	100 - 125 V or 198 - 250 V 50 - 60 Hz (others available on request)
• Wideband Input:	5 K Ohm unbalanced, composite-SCA compatible
• Input Level:	3.5 V P-P nominal for +/- 75 KHz deviation
• Wideband Amplitude Response:	+/- 0.1 dB 30 KHz to 100 KHz
• Composite FM S/N Ration:	70 dB below +/- 75 KHz deviation at 400 Hz measured with 75 microsecond de-emphasis
• Harmonic Distortion:	< 0.3%
• Stereo Separation when RVR TDSS 2 Stereo Generator is used:	better than 40 dB
• Panel Dimensions:	483 mm (19") W x 132 mm (5.3") H
• Cabinet Dimensions:	420 mm (16.54") W x 122 mm (4.8") H x 350 mm (13.78") D
• Weight:	12 Kg (26 Lbs)

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Features and specifications subject to change without notice.

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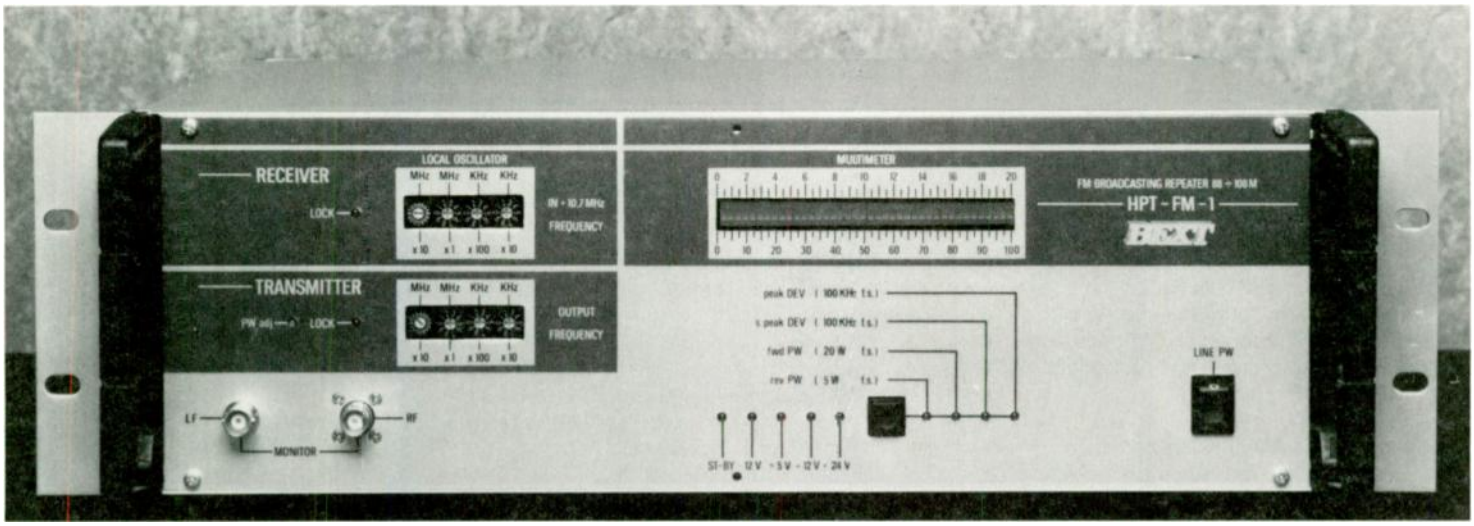
HPT

HPT FMR, HPT STL and HPT SGN
High Performance Transmitter/Translator



- Programmable composite receiver and programmable FM transmitter in one single unit, with input for local audio
- Receiver portion available for the 88-108 MHz FM band or for the 945-952 MHz STL band
- Superior MPX and SCA performance
- Excellent RF immunity, designed to withstand the most hostile RF environments
- 12 VDC input for direct hookup with backup battery
- Available as a L&R input only unit, also with built-in stereo generator (HPT SGN) for satellite-fed translators
- FSK keyer available
- Meets or exceeds all FCC and CCIR requirements

3695

619-239-8462
FAX: 619-239-8474

Technical Specifications

BEXT

HPT FMR, HPT STL, and HPT SGN High Performance Transmitter/Translator

Input Frequency Range:
87.5 to 108 MHz (HPT FMR)
or 945 - 952 MHz (HPT STL)

Ouptut Frequency Range:
87.5 to 108 MHz

Frequency Response:
+/- 0.3 dB or better, 30 Hz to 53 KHz
+/- 0.5 dB or better, 53 KHz to 75 KHz

Frequency Stability:
Better than 5 ppm (+/- 5 KHz), 0° C to 40° C (+32° F to +104° F)

Modulation Type:
Direct FM at the carrier frequency

Asynchronous AM S/N Ratio:
80 dB below reference carrier with 100% AM modulation, 75 microsecond de-emphasis (no FM modulation present)

Synchronous AM S/N Ratio:
80 dB below reference carrier with 100% AM modulation (FM modulation +/- 75 KHz)

Distortion, THD:
Stereo demodulated, decoded and de-emphasized:
30 Hz to 15 KHz: <0.1% (typ 0.05% @ 1KHz)
Mono demodulated and de-emphasized:
30 Hz to 7.5 KHz: <0.1% (typ 0.02% @ 1 KHz)

Distortion, IMD:
Intermodulation at demodulated output, two tone with 1 KHz difference frequency:
5 - 15 KHz, D2 < 0.05% D3 < 0.1%
15 - 53 KHz, D2 < 0.12% D3 < 0.3%

Stereo Separation:
50 dB or better, 30 Hz to 15 KHz (typically 55 dB or better)

Crosstalk:
50 dB or better, stereophonic subchannel to main channel

Crosstalk:
50 dB or better, main channel to stereophonic subchannel

Signal to Noise Ratio (mono):
80 dB or better, typically 85 dB with 75 KHz deviation and 400 Hz frequency modulation

Signal to Noise Ratio (stereo):
75 dB or better, typically 80 dB with 75 KHz deviation, demodulated, de-emphasized left or right

RF Input Connector/Impedance:
Type "N" female/50 Ohm

Frequency Programmability:
From front panel, with internal fine adjustment

Sensitivity:
Monaural (demodulated,de-emphasized):
5 microV for S/N > 50 dB
15 microV for S/N > 60 dB
50 microV for S/N > 65 dB
150 microV for S/N > 70 dB
1.5 milliV for S/N > 80 dB
for 60 dB S/N, 10 microV typ required

Composite (left or right channel, demodulated, de-coded, de-emphasized):
5 microV for S/N > 30 dB
15 microV for S/N > 40 dB
50 microV for S/N > 55 dB
150 microV for S/N > 60 dB
1.5 milliV for S/N > 75 dB
for 60 dB S/N, 100 microV typ required

Selectivity (static):
3 dB if bandwidth +/- 150 KHz
60 dB if bandwidth +/- 500 KHz
80 dB if bandwidth +/- 600 KHz

Selectivity (dynamics):
adjacent-channel selectivity, ratio of interfering to desired signal
+/- 300 KHz 12 dB or better
+/- 400 KHz 38 dB or better
+/- 500 KHz 45 dB or better
+/- 600 KHz 50 dB or better

Multimeter:
four function diagnostic aid, peak and semi-peak modulation meter

Output from Receiver:
1 BNC connector, unbalanced
Input to Transmitter:
2 BNC connectors, unbalanced
All levels are factory set for 0 dBm (775 mV RMS/2.2 V P-P), adjustable in the -1 to +7 dBm range

Transmitter Output Power:
1 to 20 W, continuously variable

Ambient Temperature Range:
0° C to 40° C (+32° F to +104° F)
[Operational to -20° C to +50° C (-4° F to +122° F)]

Spurious Emissions:
100 dBc or more below carrier level

Hramonic Emissions:
65 dBc or more below carrier level

Modulation Capability:
One stereo MPX program and subcarrier channels (up to 100 KHz baseband)

Composite Amplitude Response:
+/- 0.1 dB or less, 30 Hz - 200 KHz

Composite Phase Response:
+/- 0.5 degrees from linear phase, 30 Hz - 53 KHz

AC Input Power:
120 or 240 VAC
50/60 Hz, 120 VA

DC Input Power:
12.5 V (+/-0.1 V) 7 A,
10 mV P-P max ripple

Front Panel Size:
483 mm (19") W x 132 mm (5 1/4") H
(3 standard rack spaces high)

Overall Depth:
483 mm (19")

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Features and specifications subject to change without notice.

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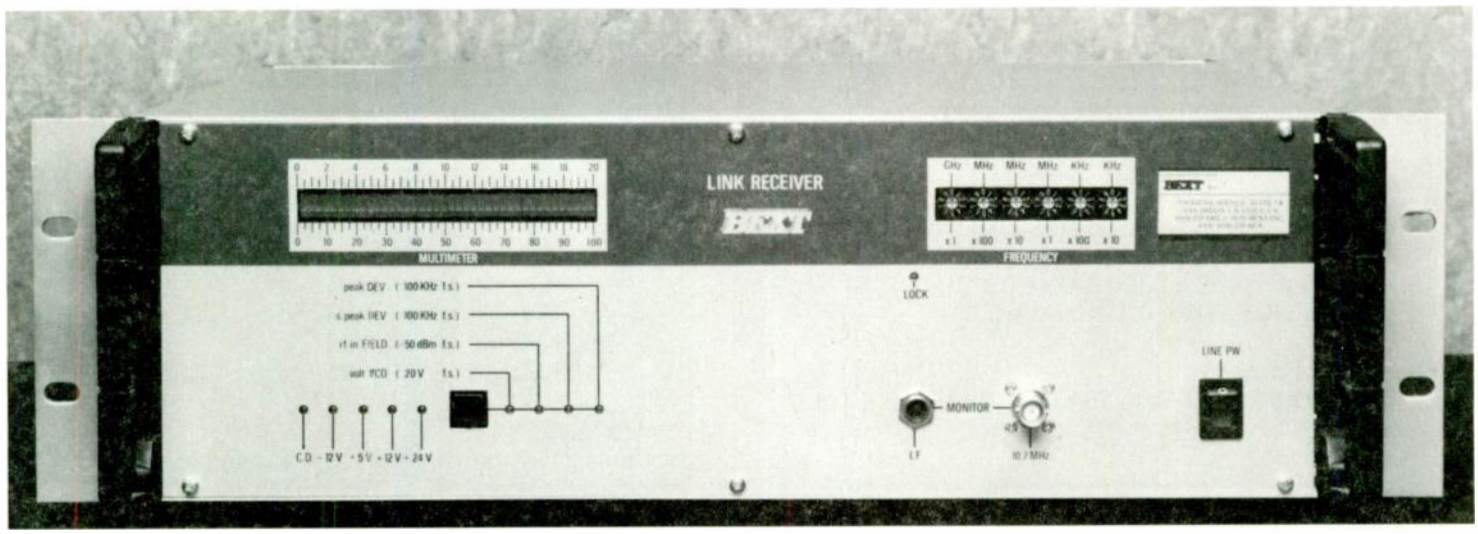
LCR FM and LCR STL

Composite Receivers



- 75 dB or better S/N
- Available for the 87.5 - 108 MHz FM band or for the 940 - 960 MHz STL band
- Direct front panel programmability
- Superior MPX and SCA performance
- Excellent RF immunity receiver, designed to withstand the most hostile RF environments
- Excellent adjacent channel rejection
- 50 dB minimum stereo separation
- 12 VDC input for direct hook-up to back-up battery
- Ideal for translator/booster applications in conjunction with one of the BEXT exciters and amplifiers (where allowed by the FCC)
- Meets or exceeds all FCC and CCIR requirements

619-239-8462
FAX: 619-239-8474

Technical Specifications

BEXT

LCR FM and LCR STL Composite Receiver

Frequency Range:
87.5 to 108 MHz (LCR FM)
or 940 - 960 MHz (LCR STL)

Frequency Response:
+/- 0.3 dB or better, 30 Hz to 53 KHz
+/- 0.5 dB or better, 53 KHz to 75 KHz

Distortion, THD:
Stereo demodulated, decoded and de-emphasized:
30 Hz to 15 KHz: <0.1% (typ 0.05% @ i KHz)
Mono demodulated and de-emphasized:
30 Hz to 7.5 KHz: <0.1% (typ 0.02% @ i KHz))

Distortion, IMD:
Intermodulation at demodulated output, two tone with 1 KHz difference frequency:
5 - 15 KHz, D2 < 0.05% D3 < 0.1%
15 - 53 KHz, D2 < 0.12% D3 < 0.3%

Stereo Separation:
50 dB or better, 30 Hz to 15 KHz (typically 55 dB or better)

Crosstalk:
50 dB or better, stereophonic subchannel to main channel

Crosstalk:
50 dB or better, main channel to stereophonic subchannel

Signal to Noise Ratio (mono):
80 dB or better, typically 85 dB with 75 KHz deviation and 400 Hz frequency modulation

Signal to Noise Ratio (stereo):
75 dB or better, typically 80 dB with 75 KHz deviation, demodulated, de-emphasized left or right

RF Input Connector/Impedance:
Type "N" female/50 Ohm

Frequency Programmability:
From front panel, with internal fine adjustment

Sensitivity:
Monaural (demodulated,de-emphasized):
5 microV for S/N > 50 dB
15 microV for S/N > 60 dB
50 microV for S/N > 65 dB
150 microV for S/N > 70 dB
1.5 milliV for S/N > 80 dB
For 60 dB S/N, 10 microV typically required

Composite (left or right channel, demodulated, de-coded, de-emphasized):
5 microV for S/N > 30 dB
15 microV for S/N > 40 dB
50 microV for S/N > 55 dB
150 microV for S/N > 60 dB
1.5 milliV for S/N > 75 dB
For 60 dB S/N, 100 microV typically required

Selectivity (static):
3 dB if bandwidth +/- 150 KHz
60 dB if bandwidth +/- 500 KHz
80 dB if bandwidth +/- 600 KHz

Selectivity (dynamics):
adjacent-channel selectivity, ratio of interfering to desired signal
+/- 300 KHz 12 dB or better
+/- 400 KHz 38 dB or better
+/- 500 KHz 45 dB or better
+/- 600 KHz 50 dB or better

Multimeter:
four function diagnostic aid, peak and semi-peak modulation meter

Outputs:
4 BNC's with + and - polarity available, balanced and unbalanced and a 6.3 mm jack female for headphones
IF 10.7 MHz: BNC connector
Carrier detector: BNC connector
All levels are factory set for 0 dBm (775 mV RMS/2.2 V P-P), adjustable in the -1 to +7 dBm range

Ambient Temperature Range:
0° C to 40° C (+32° F to +104° F)
[Operational to -20° C to +50° C (-4° F to +122° F)]

AC Input Power:
120 or 240 VAC
50/60 Hz, 30 VA

DC Input Power:
12.5 V (+/-0.1 V) 2 A,
10 mV P-P max ripple

Front Panel Size:
483 mm (19") W x 132 mm (5 1/4") H (3 standard rack spaces high)

Overall Depth:
483 mm (19")

Net Weight:
12 Kg (26.4 Lbs)

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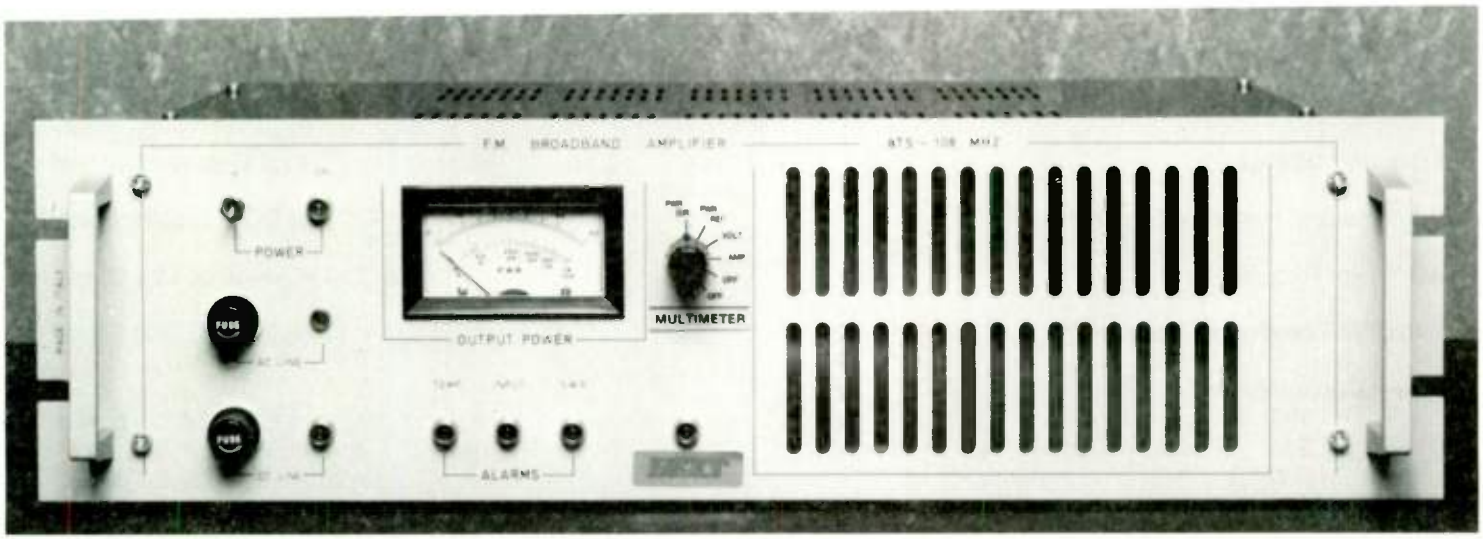
Features and specifications subject to change without notice.

BEXT

PJ 100, PJ 200 and PJ 250

Solid State FM Amplifiers



- Completely broadband amplifiers, no tuning required
- Compact size with built-in power supply
- Simple and rugged power supply, providing easy access, overload protection and fuse failure indicator lights
- VSWR, excessive temperature and excessive drive power protections, with indicator lights, which will put the transmitter driver in stand-by status in the event of failure
- Advanced recycling overload and protection system that provides automatic re-start after about 90 seconds of stand-by in case of fault. This procedure is repeated four times and in case of persisting fault, the cycle re-starts again after 15 minutes, for four more times. If fault still persists, the stop becomes permanent. If instead, during one of the re-starts, the fault disappears, the counting circuit system is reset after a regular working period of 15 minutes.
- Full remote control capability, with all main parameters in rear terminal board
- Meets or exceeds all FCC and CCIR requirements

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Technical Specifications

BEXT

PJ 100, 200, and 250 Solid State FM Amplifiers

Rated Output Power:	
For PJ 100:	100 W (range 25 - 100 W)
For PJ 200:	200 W (range 50 - 200 W)
For PJ 250:	250 W (range 100 - 250 W)
RF Drive Requirement:	
For PJ 100:	15 - 20 W
For PJ 200:	15 - 20 W
For PJ 250:	25 - 30 W
RF Output Connector/Impedance:	"N" Type/50 Ohm
Frequency Range:	87.5 MHz to 108 MHz
Spurious and Harmonic Suppression:	Meets or exceeds all FCC and CCIR requirements
AC Power Requirements	117 or 230 V, +/- 10%, 50 - 60 HZ
Available Transformer Taps:	110, 120, 220, and 240 V
Power Consumption:	
For PJ 100:	approx 275 W at full power
For PJ 200:	approx 500 W at full power
For PJ 250:	approx 650 W at full power
Panel Size:	483 mm (19") W x 132 mm (5 1/4") H (3 standard rack spaces high)
Overall Depth:	340 mm (13 1/2")
Weight:	
PJ 100:	15 Kg (33 Lbs)
PJ 200:	17 Kg (38 Lbs)
PJ 250:	17 Kg (38 Lbs)
Ambient Temperature Range:	0° C to 45° C (32° F to 113° F)

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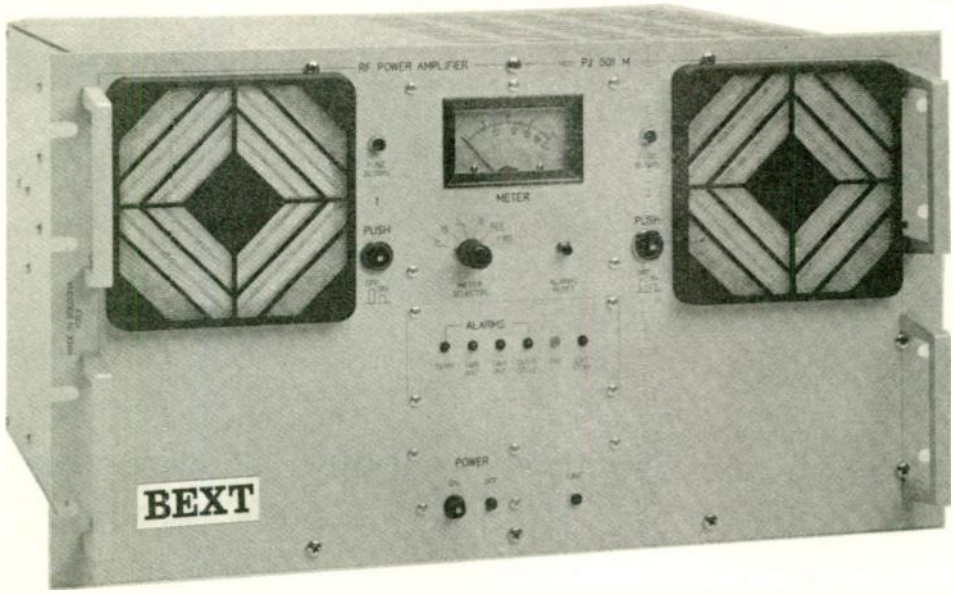
BEXT

PJ 501

FM Broadband Power Mosfet Amplifier, 87.5 - 108 MHz Range



- Very high efficiency Mosfet technology amplifier
- High gain PA, typically capable of more than 500 W output power with only 10 - 15 W drive input power
- Automatic gain control providing fixed output power even in case of fluctuating drive power
- High reliability, easy handling and consistent performance standard achieved among the various units due to total absence of tuning requirements
- VSWR, excessive temperature and excessive drive power protection, with indicator lights, which will put the transmitter driver in stand-by position in the event of failure
- Compact size with built-in high-efficiency switching power supply, providing easy access and an overload reset system with indicator lights
- Meets or exceeds all FCC and CCIR requirements
- Easily replaceable standard components
- Advanced recycling overload and protection system that provides automatic restart after about 90 seconds of stand-by in case of fault. This procedure is repeated four times and in case of persisting fault, the cycle re-starts again after 15 minutes, for four more times. If fault still persists, the stop becomes permanent. If instead, during one of the re-starts the fault disappears, the counting circuit system is reset after a regular working period of 15 minutes.
- Full remote control capability, with all main parameters on rear terminal board

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Technical Specifications

BEXT

PJ-501 Power Mosfet FM Amplifier

AC Input power:	100-130V or 198-250V, 50-60 Hz (others available on request)
Frequency range:	87.5-108 MHz (other frequencies on request)
Rated Output Power:	550 W
RF Output Connector/Impedance:	"N" Connector/50 Ohm
RF Input Connector/Impedance:	"N" Connector/50 Ohm
Spurious and Harmonic Suppression:	Meets or exceeds all FCC and CCIR requirements
Available Transformer Taps:	110, 115, 220, and 230 V
Power Consumption:	Approx. 900 W at full power
Panel Size of the Amplifier:	483 mm (19") W x 264 mm (10 1/2") H (six standard rack spaces high)
Total Depth Requirement:	420 mm (16 1/4") max
Weight:	30 Kg (66 Lbs)
Required Ambient Temperature Range:	0° C to 45° C (32° F to 113° F)

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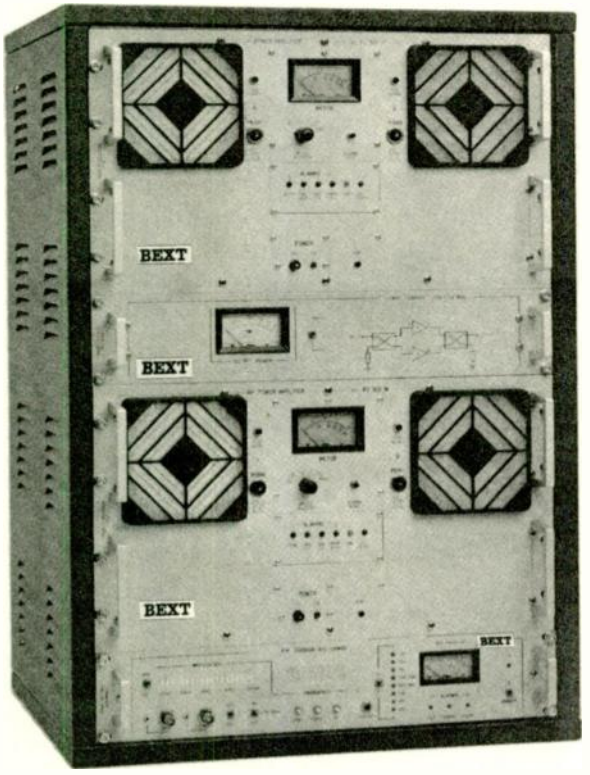
BEXT

PJ 1002

FM Broadband Power Mosfet Amplifier



- Totally modular high efficiency Mosfet technology amplifier comprised of two separate PJ 501 amplifiers and a "state of the art" combiner system
- High gain PA, typically capable of more than 1000 watts of output power with 25-30 W of drive power
- Automatic gain control providing fixed output power even in case of fluctuating drive power
- High reliability, easy handling and consistent performance due to total absence of tuning requirements
- VSWR, excessive temperature and excessive drive power protection, with indicator lights, which will put the transmitter driver in stand-by status in the event of failure
- Advanced recycling overload and protection system that provides automatic restart after about 90 seconds of stand-by. In case of fault this procedure is repeated four times and in case of persisting fault, the cycle re-starts again after 15 minutes, for four more times. If the fault still persists, the stop becomes permanent. If instead, during one of the restarts the fault disappears, the counting circuit system is reset after a regular working period of 15 minutes.
- Compact size with built-in high-efficiency switching power supply, providing easy access and an overload reset system with indicator lights
- Full remote control capability, with all main parameters on rear terminal board
- Meets or exceeds all FCC and CCIR requirements

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Technical Specifications

BEXT

PJ 1002 Power Mosfet FM Amplifier

AC Input power:	100-130V or 198-250V, 50-60 Hz (others available on request)
Frequency range:	87.5-108 MHz (other frequencies on request)
Rated Output Power:	1000 W (range 500 - 1000 W) with approx 25 - 30 W drive
RF Output Connector/Impedance:	EIA 7/8" flange or LC/50 Ohm
RF Input Connector/Impedance:	"N" Connector/50 Ohm
Spurious and Harmonic Suppression:	Meets or exceeds all FCC and CCIR requirements
Available Transformer Taps:	110, 115, 220, and 230 V
Power Consumption:	Approx. 1900 W at full power
Layout Description:	Two separate PJ 501 amplifier modules and one FM combiner, standard rack mountable (rack cabinet optional)
Panel Size of Each 500 W Amplifier Module:	483 mm (19") W x 264 mm (10 1/2") H (six standard rack spaces high)
Panel Size of Combiner:	483 mm (19") W x 132 mm (5 1/4") H (three standard rack spaces high)
Cabinet Depth of Amplifiers and Combiner:	420 mm (16 1/4") max
Total Panel Space Requirement:	483 mm (19") W x 660 mm (26 1/4")
Total Depth Requirement:	420 mm (16 1/4") max
Weight of Each Separate PJ 501 Amplifier Module:	30 Kg (66 Lbs)
Weight of Combiner:	10 Kg (22 Lbs)
Total Weight:	70 Kg (154 Lbs)
Required Ambient Temperature Range:	0° C to 45° C (32° F to 113° F)

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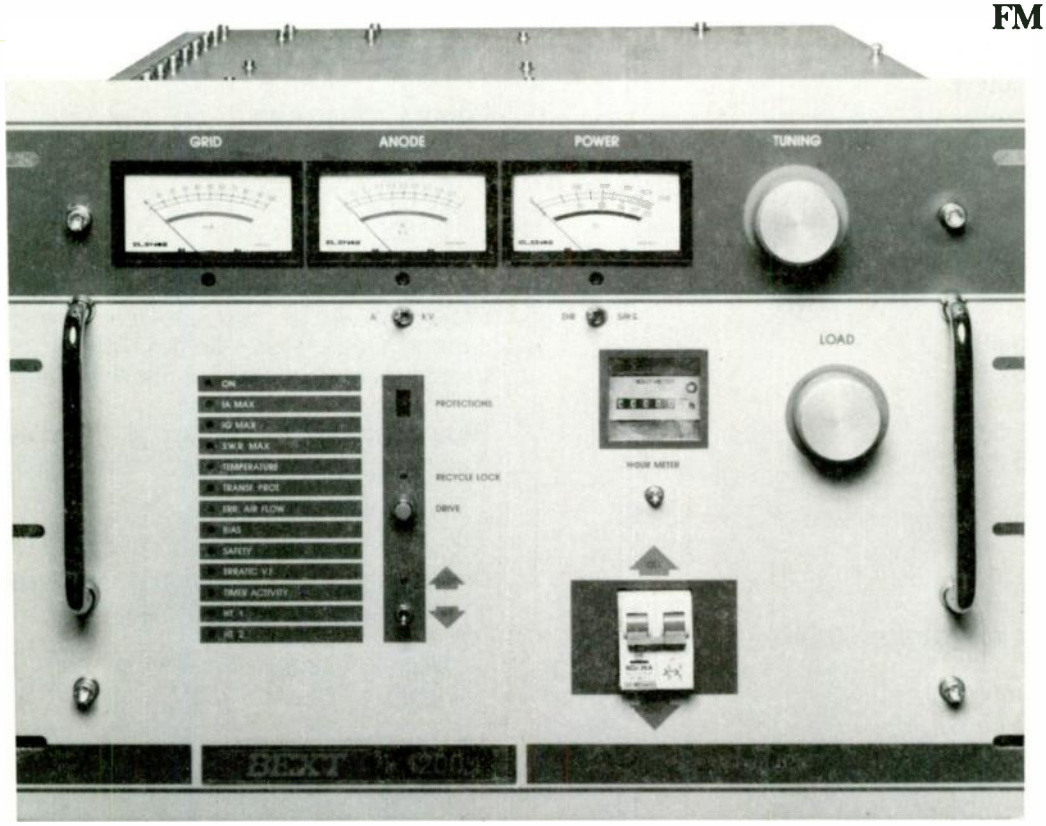
BEXT

T 800, T 1200, T 1500, T 1800 and T 2000

FM Amplifiers



- Compact size, fits into standard 19" rack cabinets
- Single tube
- Field proven, stable and reliable grounded grid configuration for long tube life
- No neutralization required
- Conservatively rated parts and components
- Simple and rugged construction
- Easy access to internal parts
- Modular design for easy maintenance
- Ample metering of all operating parameters
- Compatible with remote control systems
- Protections on all main parameters with automatic restarting
- Temperature protected power transformer, vacuum saturated with epoxy, employing an electrostatic shield between the windings
- Meets or exceeds all FCC and CCIR requirements

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Technical Specifications

BEXT

T 800, T 1200, T 1500, T 1800, and T 2000 FM Amplifiers

Output Power:
- T 800: 800 W
- T1200: 1200 W
- T1500: 1500 W
- T1800: 1800 W
- T2000: 2000 W

Tube:
- T 800: Eimac 3CX 800 A7
- Other Models: Eimac 3CX1500 A7

Frequency Range: 87.5-108 MHz

Gain:
- T 800: 15 dB
- T 1200: 16 dB
- T 1500: 15.7 dB
- T 1800: 15.5 dB
- T 2000: 15.2 dB

Output Connector: 7/8" or any Bird QC compatible

Input Connector: "N" type

Input and Output Impedance: 50 Ohm

Drive Requirement (Approx.):
- T 800: 20-25 W
- T 1200: for 1200 W output 28 W
  for 1000 W output 20-25 W
- T 1500: for 1500 W output 40 W
  for 1000 W output 25-30 W
- T 1800: for 1800 W output 50 W
  for 1000 W output 25-30 W
- T 2000: for 2000 W output 60 W
  for 1000 W output 25-30 W

Filament Voltage: Electronically Regulated

AC Requirement:
- All except T 2000: 208-240 V, 50/60 Hz, single phase
- T 2000: 240 V, three phase

Power Consumption:
- T 800: < 2.2 KVA
- T 1200: < 3.0 KVA
- T 1500: < 4.3 KVA
- T 1800: < 5.2 KVA
- T 2000: < 4.3 KVA

Protection Circuits: SWR, temperature, grid current, plate current, airflow failure, filament voltage, bias voltage transformer temperature, line overvoltage

Reset Procedure: Automatic (8 resets) auto lockout after 8 resets/restarts + displays number of interventions

Amplifiers are remote control ready

Dimensions: Fit into standard 19" rack cabinets, 8 rack spaces required (14" panel space high)
- Height: 35.52 cm (14")
- Width: 48.26 cm (19")
- Depth: 64 cm (25")

Weight:
- T 800: 90 Kg (198 Lbs)
- T 1200: 93 Kg (204.5 Lbs)
- T 1500: 96 Kg (211.25 Lbs)
- T 1800: 100 Kg (220 Lbs)
- T 2000: 100 Kg (220 Lbs)

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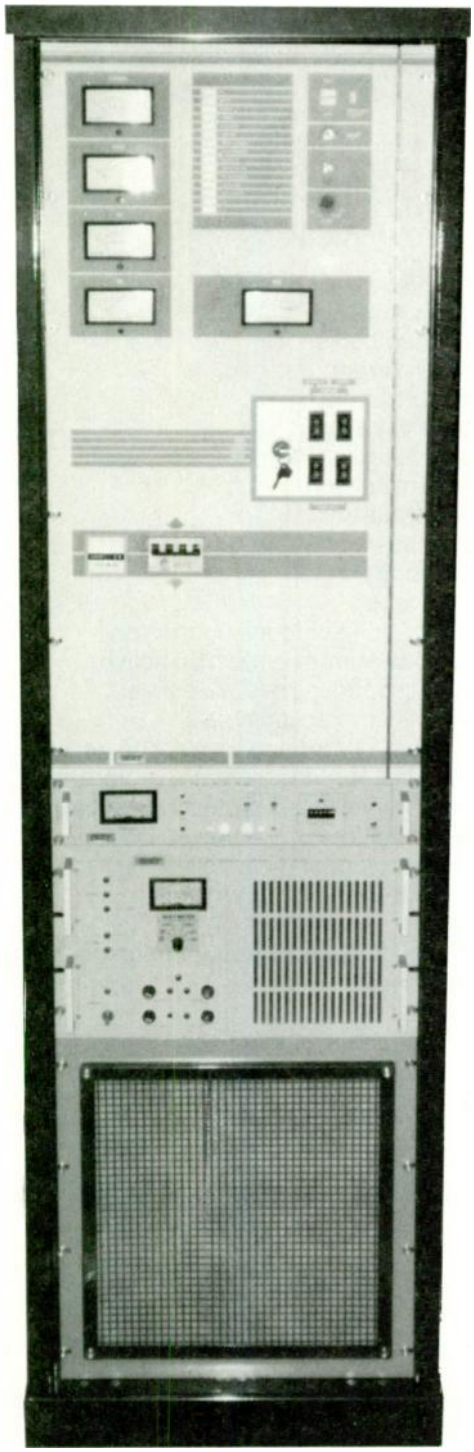
Features and specifications subject to change without notice.

BEXT

T 5000

FM Amplifier



- Compact size, standard 19" rack
- Single tube
- Field proven, stable and reliable grounded grid configuration for long tube life
- Excellent tube performance and modulation capability due to non-capacitive high efficiency coaxial anode circuit
- Conservatively rated parts and components
- Simple and rugged construction
- Easy access to internal parts
- Oversized cooling system
- Modular design for easy maintenance
- Ample metering of all operating parameters
- Compatible with remote control systems
- Protection on all parameters with automatic restarting
- Dual speed motorized tuning controls
- Temperature protected power transformer, vacuum saturated with epoxy, employing an electrostatic shield between the windings
- Meets or exceeds all FCC and CCIR requirements

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BEXT

T 5000 FM Amplifier

Output power: 5000 W

Tube: Eimac 3CX3000A7

Frequency range: 87.5-108 MHz

Gain: > 15.2 dB

Output Connector: 1 5/8" EIA flange

Input Connector: "N" type

Input and Output Impedance: 50 Ohms

Drive requirements with high bias configuration
(60 V, 3Z, 430 KHz / 0.1 dB S.A.M.):
for 5000 W output: 380 W (+/- 20 W)
for 3500 W output: 245 W (+/- 15 W)
for 3000 W output: 210 W (+/- 15 W)
Drive requirements with medium bias configuration
(42 V, 2Z, 300 KHz / 0.1 dB S.A.M.):
for 5000 W output: 310 W (+/- 15 W)
for 3500 W output: 245 W (+/- 15 W)
for 3000 W output: 180 W (+/- 15 W)
Drive requirements with low bias configuration
(24 V, 1Z, 250 KHz / 0.1 dB S.A.M.):
for 4500 W output: 260 W (+/- 15 W)
for 4000 W output: 225 W (+/- 15 W)
for 3000 W output: 165 W (+/- 10 W)

Filament Voltage: Electronically regulated

AC Requirement: 208-240 V or 380 V, 50/60 Hz three phase

Power Consumption:
for 5000 W output < 9.8 KVA
for 3500 W output < 7.5 KVA
for 3000 W output < 7 KVA

Protection circuits: SWR, temperature, grid current, plate current, airflow failure, filament voltage, bias voltage, transformer temperature, phase failure from AC line, fan motor failure, line overvoltage

Reset procedure: Automatic (8 resets) auto lockout after 8 resets/restarts, displays numbers of interventions

Amplifier is remote control ready

Dimensions:

Height	164 cm (64.5")
Width	57 cm (22.4")
Depth	72 cm (28.3")
Weight	350 Kg (770 Lbs)

Metering:
- Direct power
- Reflected power
- Anode current
- Grid current
- Anode voltage
- Bias voltage
- Filament voltage
- Temperature
- Hour meter
- Indicator lights for:
  - Power on
  - Door open or loose connector
  - Anode current protection active
  - Grid control protection active
  - VSWR protection active
  - Cavity temperature protection active
  - Transformer temperature protection active
  - Filament voltage protection active
  - Bias voltage protection active
  - Fan fault protection active
  - Anode insertion timer status
  - Anode power-up status
  - Shutdown after maximum number of fault conditions

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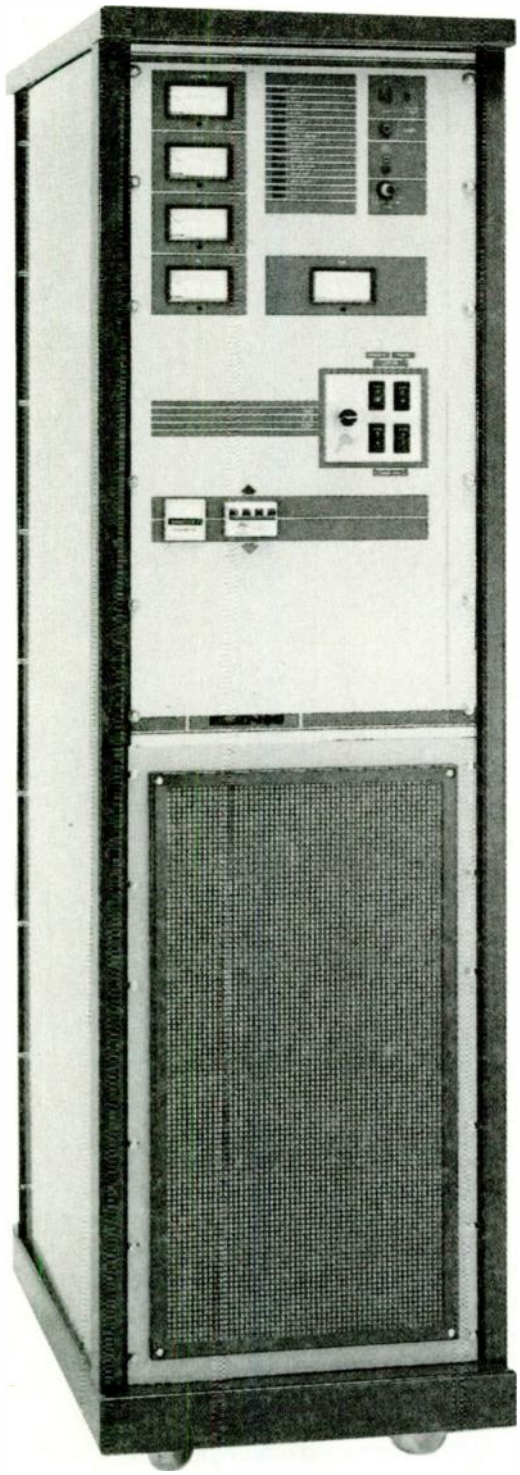
BEXT

T 12000, T 15000, T 20000, T 30000

FM Amplifiers



- Compact size, standard 19" rack
- Single tube
- Field proven, stable and reliable grounded grid configuration for long tube life
- No neutralization required
- Conservatively rated parts and components
- Simple and rugged construction
- Easy access to internal parts
- Oversized cooling system
- Modular design for easy maintenance
- Ample metering of all operating parameters
- Compatible with remote control systems
- Protections on all main parameters with automatic restarting
- Dual speed motorized tuning controls
- Temperature protected power transformer with electrostatic shield between the windings
- Meets or exceeds all FCC and CCIR requirements

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Technical Specifications

BEXT

	T 12000	T 15000	T 20000	T 30000
Tube complement	3CX10000 A7	3CX15000 A7	3CX15000 A7	4CX20000 D
RF output connector	3 1/8" Flange	3 1/8" Flange	3 1/8" Flange	3 1/8" Flange
RF input connector	7/8" Flange	7/8" Flange	7/8" Flange	7/8" Flange
RF in/out impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms
Max ambient temperature	40° C	40° C	40° C	40° C
Max relative humidity	80%	80%	80%	70%
Power consumption	19.5 KVA	24.5 KVA	31 KVA	49.5 KVA
Output power	12 KW	15 KW	20 KW	30 KW
Drive requirement	250 W	800 W	1250 W	1250 W
High output drive requirement	800 W	1200 W	1800 W	1800 W
Gain	13 dB	13 dB	13 dB	13 dB
Efficiency	60%	60%	75%	72%
Max VSWR	600 W	600 W	600 W	600 W
Harmonic suppression	-82 dBc	-82 dBc	-82 dBc	-82 dBc
Weight	500 Kg 1100 Lbs	560 Kg 1232 Lbs	630 Kg 1386 Lbs	500 Kg (X2) 1100 Lbs (X2)

AC power requirement	240 V or 380 V 3 phase 50/60 Hz	
Frequency range	87.5 - 108 MHz	
Dimensions	19" standard cabinet, 40 rack spaces high. Height: 79" (2000 mm) + 4" (100 mm) for air outlet Width: 22 1/2" (570 mm) Depth: 36 1/4" (920 mm)	(2) cabinets @ 32 spaces each; 63" H + 4" for flue X 22 1/2" W X 36 1/4 " D
Diameter of air outlet	7 1/2" (180 mm)	

Reset procedure: Automatic (8 resets). Auto lockout after 8 resets/restarts. Displays number of interventions.

Metering:

- Direct power
- Reflected power
- Anode current
- Grid current
- Anode voltage
- Bias voltage
- Filament voltage
- Temperature
- Hour meter

Indicator lights for:

- Power on
- Door open or loose connector
- Anode current protection active
- Grid control protection active
- VSWR protection active
- Cavity temperature protection active
- Transformer temperature protection active
- Filament voltage protection active
- Bias voltage protection active
- Fan fault protection active
- Anode insertion timer status
- Anode power-up status
- Shutdown after maximum number of fault conditions

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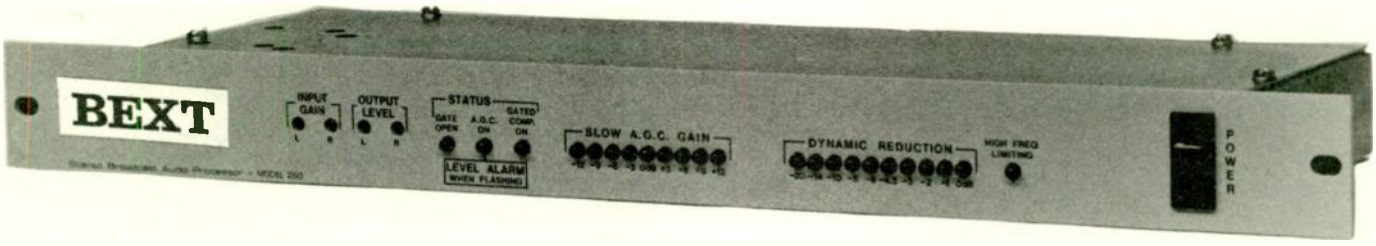
Features and specifications subject to change without notice.

BEXT

260

Stereo Broadcast Processor



- Gated AGC and compression
- Program-controlled "floating platform" limiter release characteristic
- Unique Level Alarm warns of "dead air" and out-of-limits operation
- Feedforward PWM gain control for smooth, colorless performance
- Easy setup and maintenance - no subjective adjustments or internal calibration required
- Uses off-the-shelf components

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General:

Frequency Response:
± 0.5 dB, 10 Hz - 15 KHz

Noise:
>75 dB below 100% modulation, 10 Hz - 15 KHz

Distortion:
(with full AGC correction and 10 dB Dynamic Reduction) <.0.5%, 20 Hz - 15 KHz, <0.25%, 50 Hz - 10 KHz

Crosstalk:
Better than 60 dB, 10 Hz - 10 KHz

Inputs (Left and Right):
Active-balanced, bridging, accept nominal line levels between -20 and +10 dBmV

Outputs (Left and Right):
Active-balanced, 600 ohm source impedance, deliver 0 to +15 dBm to 600 ohm loads

Power Requirement:
105 - 130 VAC or 205 - 255 VAC, 50/60 Hz; 20 W

Dimensions:
1 3/4" x 19" x 8" (One rack unit)

Shipping Weight::
12 lbs

Gate Circuit:

Gating inhibits AGC "hunting" and Average Compression release during brief pauses in the input program. Extended program loss slowly returns circuit gains to resting values.

Threshold:
Fixed at -25 dB relative to AGC-corrected program level

Frequency Weighting:
-3 dB at 300 Hz and 3 KHz

Level Alarm:
Front panel indicator flashes when AGC correction exceeds ±9 dB or when "dead air" (Gate cled) exceeds 10 seconds

AGC:

Slow AGC erases long-term program level variations for more consistent Compression and Limiting action. AGC may be temporarily defeated by grounding a rear-panel terminal.

Correction Range:
±12 dB

Correction Rate:
Approximately 0.5 dB/second

Response to Program Dynamics:
Quasi-peak; 10 ms, UK/EBU PPM integration

Dynamic Reduction:

Compression and Limiting share a common split-spectrum gain control circuit, but are separated by a time domain "floating platform" attack/release characteristic. Compression (only) or total Dynamic Reduction may be independently defeated by grounding rear-panel terminals.

Spectrum Division:
Independent high frequency gain reduction follows 75 µs pre-emphasis characteristic. 25 µs and 50 µs optionally available.

Compressor Attack:
5 msec/dB

Limiter Attack:
<1µs

Limiter Release:
1 ms/dB to Compressor "platform" value; 10 ms/dB when Compressor is defeated

Ceiling Clipper:
Active only on Limiter overshoots which would exceed 100% modulation. Conforms to pre-emphasis characteristic.

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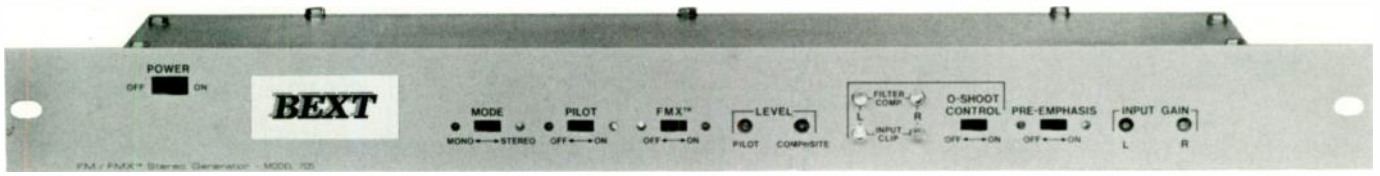
BEXT

705

FM Stereo Generator



- Digital synthesis of pilot(s) and subcarrier(s) gives maximum stereo separation and stable operation with no trimming adjustments or other routine maintenance.
- Internal phase-compensated lowpass input filtering provides complete pilot and SCA protection. A 25 Hz highpass function reduces exciter PLL perturbation.
- Built-in peak overmodulation protection and proprietary filter overshoot control circuits assure full modulation without the need for additional compensation processing.
- Adjustable compensation equalization can correct for STL or other system nonlinearities.
- The 705 can interface with a variety of audio processing systems.
- Setup and maintenance are easy. All components are readily available; no encapsulated or single-source parts are used.

619-239-8462
FAX: 619-239-8474

Technical Specifications

BEXT

705 Stereo Generator

Frequency response:	+/- 0.5 dB, 25 Hz - 16 KHz; -20 dB or better at 10 Hz, -60 dB or better at 19 KHz
Stereo separation:	Better than 55 dB, 25 Hz - 5 KHz; better than 45 dB, 5 KHz - 16 KHz
Noise (below 100% modulation, pilot OFF):	-75 dB or better in baseband and subcarrier; 38 KHz residual and "digital" noise above 54 KHz, -60 dB or better
Pilot:	19 KHz +/- 1 Hz; <2% THD (dist. products better than 55 dB below 100% mod.); injection level adjustable between 6% and 12 % relative to 100% modulation
Inputs (Left and Right):	Active-balanced, bridging; accept line input levels between -10 and + 15 dBmV for 100% modulation
Input filtering:	7-pole, phase corrected, active-elliptic, "FNDR" lowpass with defeatable overshoot control circuitry. Third-order Chebyshev highpass section.
Pre-emphasis:	Selectable for 75- or 50-microsecond or flat transmission characteristics
Output:	Single-ended; selectable 75-ohm or "zero" (voltage source) impedance. Level adjustable between -5 and+12 dBmV (0.5 - 3 V RMS, or 1.2 - 8 V P-P).
Overmodulation protection:	Integral part of input filter overshoot control circuitry; defeatable with same
Digital synthesis sampling rate:	608 KHz (16X subcarrier)
FMX™ option:	Auxiliary plug-in circuit board with all parameters preset. Easily user-installed (or exchanged with possible updated versions)
Power requirements:	105 - 130 or 205 - 255 VAC, 50/60 Hz; 8W
Dimensions:	1.75" H X 19" W X 7" D
Weight:	3.6 Kg (8 Lbs)

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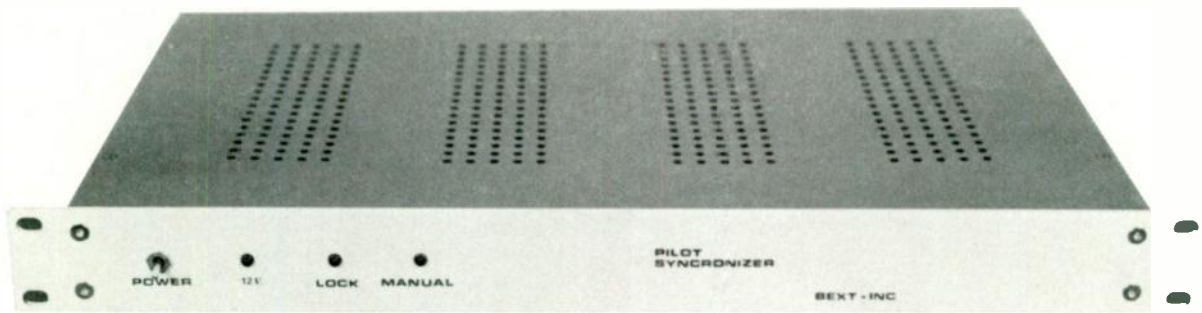
Features and specifications subject to change without notice.

BEXT

PS 1

Pilot Synchronizer



The purpose of the Pilot Synchronizer is to phase lock one or more FM exciters to a common reference using the 19 KHz pilot tone on a multiplex FM signal.

The composite signal from an FM receiver or STL link is fed to the input of the synchronizer. The internal circuitry extracts the 19 KHz pilot tone and uses this tone to phase lock an internal voltage controlled crystal oscillator (VXVO). The output of the unit may be either a 1 KHz square wave or a 10 KHz square wave which is used as a reference frequency for the exciter.

The required stability of the pilot tone is +/- 4.5 ppm to maintain the FM exciter to within +/- 0.5 KHz stability in the 87.5 to 108 MHz band.

Should the incoming signal fail, the internal circuitry will switch to an internal reference and will maintain the exciter frequency. When the composite signal returns, the unit will automatically switch to the phase lock condition. BEXT exciters are provided with the capability to shut down at loss of signal if so desired.

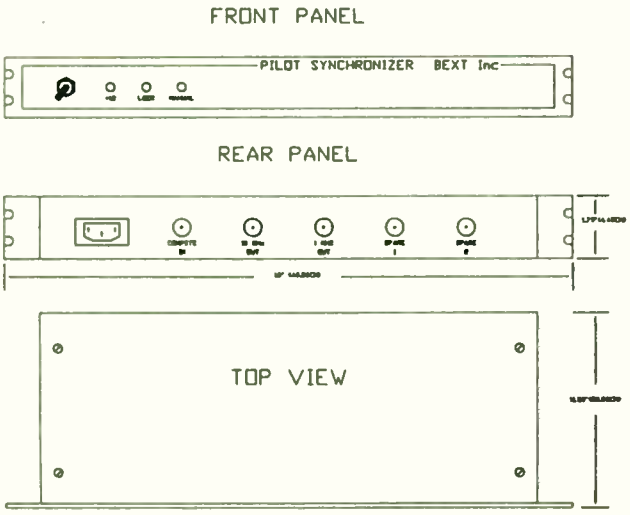
619-239-8462
FAX: 619-239-8474

Technical Specifications

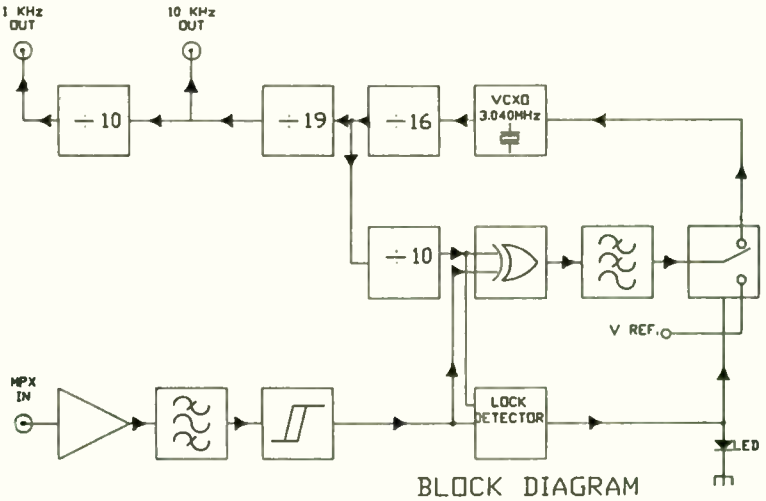
BEXT

PS 1 Pilot Synchronizer

Input composite range:	-6 to 10 dBm
Input composite impedance:	50 - 600 - 10K Ohm (internally selectable)
Output levels 1 - 10 KHz:	TTL, 50% duty cycle
Input and output connectors:	BNC
Power requirements:	117 or 230 V 50/60 Hz, 10 VA max
Ambient temperature range:	0° to 40° C (operational to -10° and 50° C)
Max humidity:	90%
Frequency stability:	same as pilot tone if locked; better than +/- 4.5 ppm, 0° to 40° C if unlocked
Cabinet size:	19" W X 1.75" H X 11.25" D (483 mm X 445 mm X 286 mm)
Weight:	3 Kg (6.6 Lbs)



OUTLINE DWG. PILOT SYNCHRONIZER



BLOCK DIAGRAM
PILOT SYNCHRONIZER

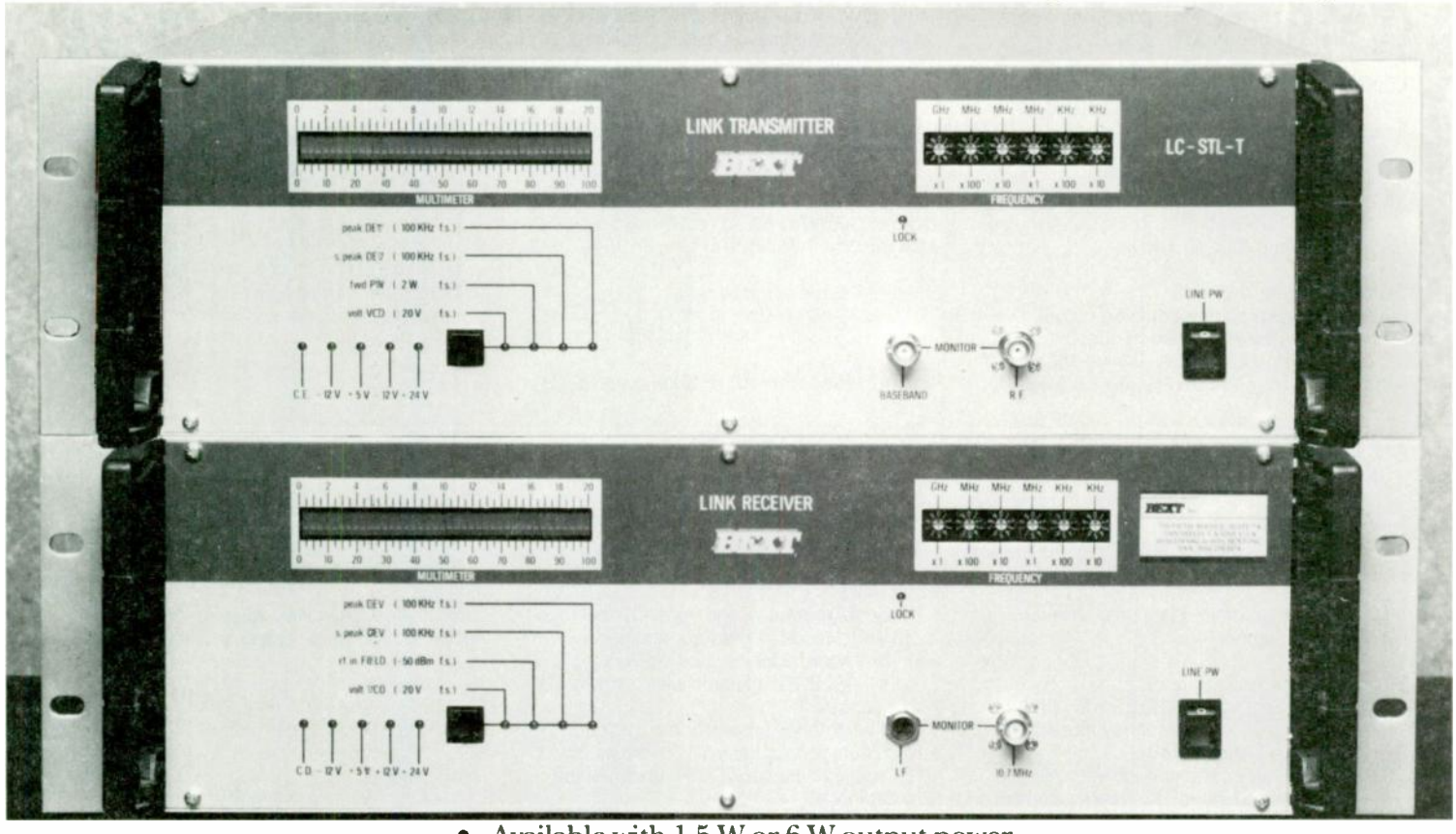
619-239-8462
FAX: 619-239-8474

Features and specifications subject to change without notice.

BEXT

LC STL

Composite Aural STL System



- Available with 1.5 W or 6 W output power
- Front panel frequency programmability
- 75 dB or better S/N
- Superior MPX and SCA performance
- Excellent RF immunity receiver, designed to withstand the most hostile RF environments
- Excellent adjacent channel rejection
- 50 dB minimum stereo separation
- 12 VDC input for direct hook-up to back-up battery
- Meets or exceeds all FCC and CCIR requirements

619-239-8462
FAX: 619-239-8474

Technical Specifications

LC STL Composite Aural STL

BEXT

LC STL System Specifications

Frequency Range:
930 to 960 MHz

Frequency Response:
+/- 0.3 dB or better, 30 Hz to 53 KHz
+/- 0.5 dB or better, 53 KHz to 75 KHz

Distortion, THD:
Stereo demodulated, decoded and de-emphasized:
30 Hz to 15 KHz:
<0.1% (typ 0.05% @ 1 KHz)
Mono demodulated and de-emphasized:
30 Hz to 7.5 KHz:
<0.1% (typ 0.02% @ 1 KHz)

Distortion, IMD:
Intermodulation at demodulated output, two tone with 1 KHz difference frequency:
5 - 15 KHz, D2 < 0.05% D3 < 0.1%
15 - 53 KHz, D2 < 0.12% D3 < 0.3%

Stereo Separation:
50 dB or better, 30 Hz to 15 KHz (typically 55 dB or better)

Crosstalk:
50 dB or better, stereophonic subchannel to main channel

50 dB or better, main channel to stereophonic subchannel

Signal to Noise Ratio (mono):
80 dB or better, typically 82 dB with 75 KHz deviation and 400 Hz frequency modulation
Signal to Noise Ratio (stereo):
75 dB or better, typically 80 dB with 75 KHz deviation, demodulated, de-emphasized left or right

LCT STL - TX Specifications

Power Output:
0.15 W to 1.5 W continuously variable, or
0.60 W to 6.0 W continuously variable

Frequency of Operation:
Synthesized, with temperature compensated crystal reference

RF Output Connector/Impedance:
Type "N" female/50 Ohm

Frequency Stability:
Better than 5 ppm (+/- 5 KHz), 0° C to 40° C (+32° F to +104° F)

Frequency Range:
930 - 960 MHz directly digitally programmable in 80 KHz increments, with fine frequency adjustment

Modulation Type:
Direct FM at the carrier frequency

Asynchronous AM S/N ratio:
80 dB below reference carrier with 100% AM modulation, 75 microsec de-emphasis (no FM modulation present)

Synchronous AM S/N Ratio:
80 dB below reference carrier with 100% AM modulation (FM modulation +/-75 KHz)

Multimeter:
Four function diagnostic aid, peak and semi-peak modulation meter and linear scale power display

DC Input Power:
12.5 V (+/-0.1 V) 2 A (3.5 A for 6 W models), 10 mV P-P max ripple

AC Input Power:
120 or 240 VAC 50/60 Hz 30 VA max (50 VA max for 6 W models)

Ambient Temperature Range:
0° C to 40° C (+32° F to +104° F) [operational to -20° C to +50° C (-4° F to +122° F)]

Spurious and Harmonic or Subharmonic Emission:
60 dBc or more below carrier level

Modulation Capability:
One stereo MPX program (balanced or unbalanced input) and subcarrier channels (up to 100 KHz baseband)

Audio Inputs:
1 baseband input, + and - polarity, balanced and unbalanced, 4 BNC connectors
All levels are factory set for 0 dBm (775 mV RMS/2.2 V P-P), adjustable in the -1 to +7 dBm range
Input impedance is switchable 600 Ohm/10k Ohm pre-emphasis (75 microsec for FCC, 50 microsec for CCIR) is switchable for flat inputs

Composite FM S/N Ratio:
75 dB below 75 KHz deviation (85 dB typical) measured in a 30 Hz to 20 KHz bandwidth

Composite Harmonic Distortion:
0.05% or less (.02% typical)

Stereo Separation:
Greater than 65 dB, 100 Hz to 15 KHz
Greater than 60 dB, 30 Hz to 15 KHz

Composite Amplitude Response:
+/- 0.1 dB or less, 30 Hz - 200 KHz

Composite Phase Response:
+/- 0.5 degrees from linear phase, 30 Hz - 53 KHz

Front Panel Size:
483 mm (19") W x 132 mm (5 1/4") H (3 standard rack spaces high)

Overall Depth: 483 mm (19")
Net Weight: 10 Kg (22 Lbs), 1.5 W model
12 Kg (26.4 Lbs), 6 W model
Finish: Anodized aluminum

LCR STL - Receiver Specifications

RF Input Connector/Impedance:
Type "N" female/50 Ohm

Frequency Range:
930 - 960 MHz directly digitally programmable in 80 KHz increments, with fine frequency adjustment

Sensitivity:
Monaural (demodulated, de-emphasized):
5 microV for S/N > 50 dB
15 microV for S/N > 60 dB
50 microV for S/N > 65 dB
150 microV for S/N > 70 dB
1.5 milliV for S/N > 80 dB
for 60 dB S/N, 10 micrV typ required
Composite (left or right channel, demodulated, decoded, de-emphasized):
5 microV for S/N > 30 dB
15 microV for S/N > 40 dB
50 microV for S/N > 55 dB
150 microV for S/N > 60 dB
1.5 milliV for S/N > 75 dB
for 60 dB S/N, 100 micrtoV typ required

Selectivity (static):
3 dB IF bandwidth +/- 150 KHz
60 dB IF bandwidth +/- 500 KHz
80 dB IF bandwidth +/- 600 KHz

Selectivity (dynamics): adjacent-channel selectivity, ratio of interfering to desired signal
+/- 300 KHz 12 dB or better
+/- 400 KHz 28 dB or better
+/- 500 KHz 45 dB or better
+/- 600 KHz 50 dB or better

Multimeter:
4 function diagnostic aid, peak and semi-peak modulation meter

Outputs:
4 BNC's with + and - polarity available, balanced and unbalanced and a 6.3 mm jack female for headphones
IF 10.7 MHz: BNC connector
Carrier Detector: BNC connector
All levels are factory set for 0 dBm (775 mV RMS/2.2 V P-P), adjustable in the -1 TO + 7 dBm range

Ambient Temperature Range:
0° C to 40° C (+32° F TO +104° F) [operational to -20° C to +50° C (-4° F to +122° F)]

AC Input Power:
120 or 240 VAC, 50/60 Hz 30 VA

DC Input Power:
12.5 V (+/- 0.1 V) 2 A, 10 mV P-P max ripple

Front Panel Size:
483 mm (19") W x 132 mm (5 1/4") H (3 standard rack spaces high)

Overall Depth: 483 mm (19")
Net Weight: 12 Kg (26.4 Lbs)
Finish: Anodized aluminum

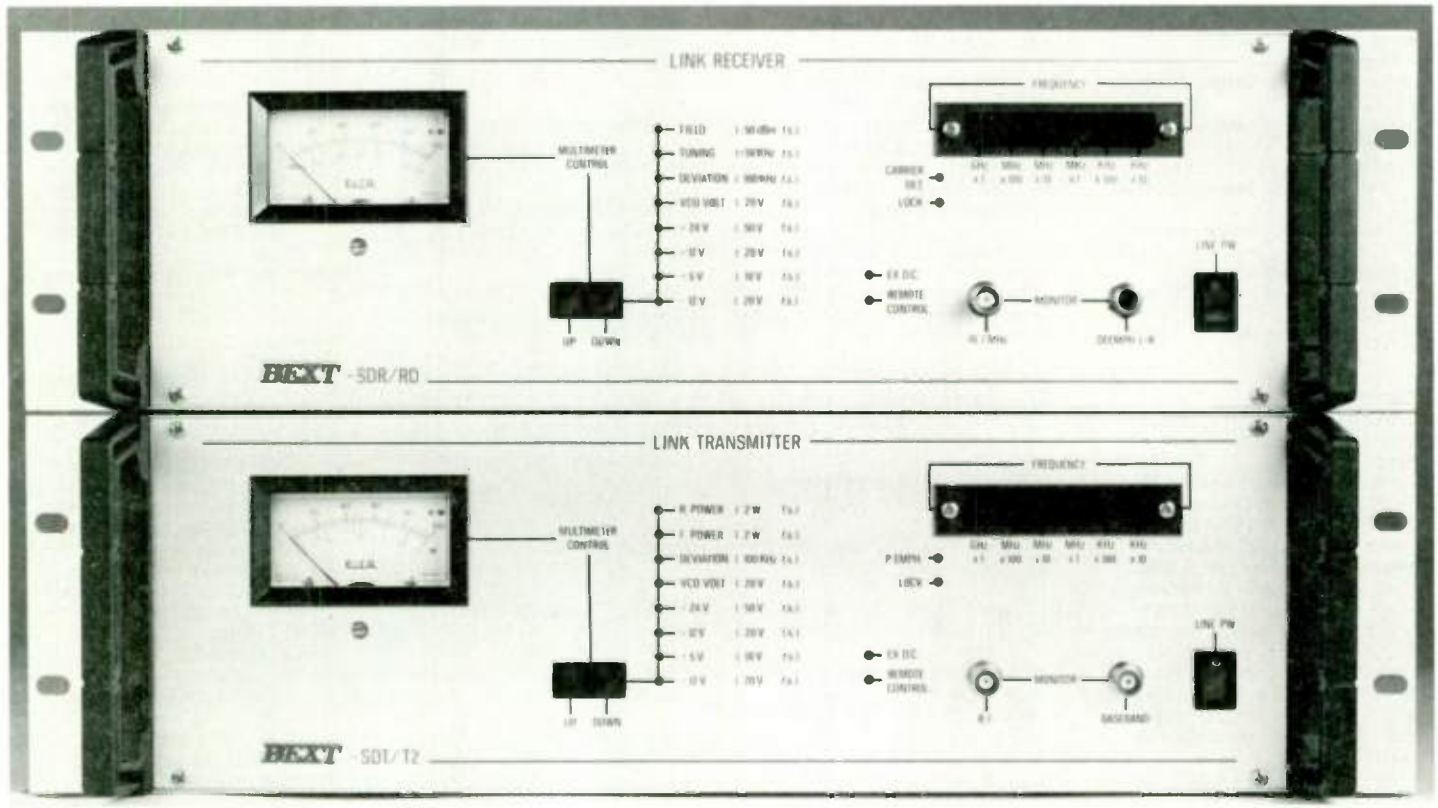
619-239-8462
FAX: 619-239-8474

Features and specifications subject to change without notice.

BEXT

SD STL

Composite Aural STL System



- Front panel frequency programmability
- 80 dB or better S/N
- Superior MPX and SCA performance
- Capable of 100 - 200 KHz telemetry/data subcarriers on separate port in addition to 0-100 KHz port for main program and standard SCA's
- Excellent RF immunity receiver, designed to withstand the most hostile RF environments
- Excellent adjacent channel rejection
- 50 dB minimum stereo separation in the worst possible condition of selectivity (narrow band)
- 12 VDC input for direct hook-up to back-up battery

619-239-8462
FAX: 619-239-8474

Technical Specifications

BEXT

SD STL - Composite Aural STL

SD STL System Specifications

Frequency Range: 930 to 960 MHz

Frequency Response:
Wide Selectivity
+/- 0.1 dB or better, 30 Hz to 53 KHz
+/- 0.3 dB or better, 53 KHz to 75 KHz
Mid Selectivity
+/- 0.3 dB or better, 30 Hz to 53 KHz
+/- 0.5 dB or better, 53 KHz to 75 KHz
Narrow Selectivity
+/- 0.5 dB or better, 30 Hz to 53 KHz
+/- 1 dB or better, 53 KHz to 75 KHz

Distortion, THD:
Stereo demodulated, decoded and de-emphasized 30 Hz to 15 KHz:
<0.1% (typ 0.05%) on wide
<0.15% (typ 0.1%) on mid
<0.18% (typ 0.15%) on narrow
Mono demodulated and de-emphasized 30 Hz to 7.5 KHz:
<0.08% (typ 0.02%) on wide
<0.1% (typ 0.06%) on mid
<0.15% (typ 0.08%) on narrow

Distortion, IMD: Intermodulation at demodulated output, two tone with 1 KHz difference frequency:
5 - 15 KHz, D2 < 0.05% D3 < 0.1%
15 - 53 KHz, D2 < 0.12% D3 < 0.3%

Stereo Separation: 50 dB or better, 30 Hz to 15 KHz (typically 55 dB or better) in all selectivity positions, 60 dB average in "wide" selectivity position

Crosstalk: 50 dB or better, stereophonic subchannel to main channel
50 dB or better, main channel to stereophonic subchannel

Signal to Noise Ratio (mono): 80 dB or better, typically 85 dB with 75 KHz deviation and 400 Hz frequency modulation

Signal to Noise Ratio (stereo): 80 dB or better, typically 82 dB with 75 KHz deviation, demodulated, de-emphasized left or right

SDT STL - TX Specifications

Power Output: 0.15 W to 1.5 W continuously variable

Frequency of Operation: Synthesized, with temperature compensated crystal reference

RF Output Connector/Impedance: Type "N" female/50 Ohm

Frequency Stability: Better than 5 ppm (+/- 5 KHz), 0° C to 40° C (+32° F to +104° F)

Frequency Range: 930 - 960 MHz directly digitally programmable in 80 KHz increments, with fine frequency adjustment

Modulation Type: Direct FM at the carrier frequency

Asynchronous AM S/N Ratio: 80 dB below reference carrier with 100% AM modulation, 75 microsec de-emphasis (no FM modulation present)

Synchronous AM S/N Ratio: 80 dB below reference carrier with 100% AM modulation (FM modulation +/-75 KHz)

Multimeter: Eight function diagnostic aid

DC Input Power: 12.5 V (+/-0.1 V) 2 A, 10 mV P-P max ripple

AC Input Power: 100, 120, 220, 240 VAC 50/60 Hz, 30 VA max

Ambient Temperature Range: 0° C to 40° C (+32° F to +104° F) [operational to -20° C TO +50° C (-4° F to +122° F)]

Spurious and Harmonic or Subharmonic Emission: 60 dBc or more below carrier level

Modulation capability: One stereo MPX program (balanced or unbalanced input) and all subcarrier channels

Audio Inputs:
Monaural:
30 Hz - 15 KHz, one unbalanced BNC connector
Composite (Stereo Program and Standard SCA's):
30 Hz - 100 KHz or 0 - 100 KHz (switchable), 2 unbalanced BNC connectors (1 with + phase polarity and 1 with - phase polarity) and 1 cannon balanced connector
Data/Telemetry Subcarriers:
100 KHz - 200 KHz, 2 unbalanced BNC connectors
All levels are factory set for 0 dBm (775 mV RMS/2.2 V P-P), adjustable in the -1 to +7 dBm range

Input impedance is switchable: 600 Ohm/10k Ohm pre-emphasis (75 microsec for FCC, 50 microsec for CCIR) is switchable for flat inputs

Composite FM S/N Ratio: 80 dB below 75 KHz deviation (85 dB typical) measured in a 30 Hz to 20 KHz bandwidth

Composite Harmonic Distortion: 0.05% or less (0.02% typical)

Stereo Separation: Greater than 65 dB, 100 Hz to 15 KHz; greater than 60 dB, 30 Hz to 15 KHz

Composite Amplitude Response: +/- 0.1 dB or less, 30 Hz - 200 KHz

Composite Phase Response: +/- 0.5 degrees from linear phase, 30 Hz - 53 KHz

Front Panel Size: 483 mm (19") W x 132 mm (5 1/4") H (3 standard rack spaces high)

Overall Depth: 483 mm (19")

Net Weight: 10 Kg (22 Lbs)

Finish: Anodized aluminum

SDR STL - Receiver Specifications

RF Input Connector/Impedance: Type "N" female/50 Ohm

Frequency Range: 930 - 960 MHz directly digitally programmable in 80 KHz increments, with fine frequency adjustment

Sensitivity:
Composite:
5 microV for S/N > 30 dB
15 microV for S/N > 40 dB
50 microV for S/N > 55 dB
150 microV for S/N > 60 dB
1.5 milliV for S/N > 75 dB
for 60 dB S/N, 100 microV typ required
Monaural:
5 microV for S/N > 50 dB
15 microV for S/N > 60 dB
50 microV for S/N > 65 dB
150 microV for S/N > 70 dB
1.5 milliV for S/N > 80
for 60 dB S/N, 10 microV typ required

Selectivity (static):
Narrow Position:
3 dB IF bandwidth +/- 120 KHz
60 dB IF bandwidth +/- 350 KHz
80 dB IF bandwidth +/- 450 KHz
Mid Position:
3 dB IF bandwidth +/- 150 KHz
60 dB IF bandwidth +/- 500 KHz
80 dB IF bandwidth +/- 600 KHz
Wide Position:
3 dB IF bandwidth +/- 200 KHz
60 dB IF bandwidth +/- 800 KHz
80 dB IF bandwidth +/- 1000 KHz

Selectivity (dynamics): adjacent-channel selectivity, ratio of interfering to desired signal
+/- 300 KHz 25 dB or better
+/- 400 KHz 45 dB or better
+/- 500 KHz 50 dB or better
+/- 600 KHz 55 dB or better

Multimeter: 8 function diagnostic aid

Outputs:
Monaural:
30 Hz - 15 KHz, 1 unbalanced BNC connector
Composite (stereo program and standard SCA's):
0 - 100 KHz, 2 unbalanced BNC connectors (one with + phase polarity and one with - phase polarity) and 1 Cannon balanced connector
Data/Telemetry Subcarriers:
100 KHz - 200 KHz, 2 unbalanced BNC connectors
IF 10.7 MHz:
BNC connector
Carrier Detector:
Pin 8 of 16 pin Cannon connector
Separate L/R Channels:
(decoded, de-emphasized stereo program), 2 unbalanced BNC connectors, (1 for left channel and 1 for right channel) and 1 Cannon balanced connector with separate left and right channels (the polarity of these decoded outputs is internally switchable) and one 6.3 mm jack female for headphones
All levels are factory set for 0 dBm (775 mV RMS/2.2 V P-P), adjustable in the -1 to +7 dBm range

Ambient temperature range: 0° C TO 40° C (+32° F TO +104° F) [operational TO -20° C TO +50° C (-4° F TO +122° F)]

AC input power: 100, 120, 220, 240 VAC 50/60 Hz 30 VA

DC input power: 12.5 V (+/- 0.1 V) 2 A, 10 mV P-P max ripple

Front panel size: 483 mm (19") W x 132 mm (5 1/4") H (3 Standard rack spaces high)

Overall depth: 483 mm (19")

Net weight: 12 Kg (26.4 Lbs)

Finish: Anodized Aluminum

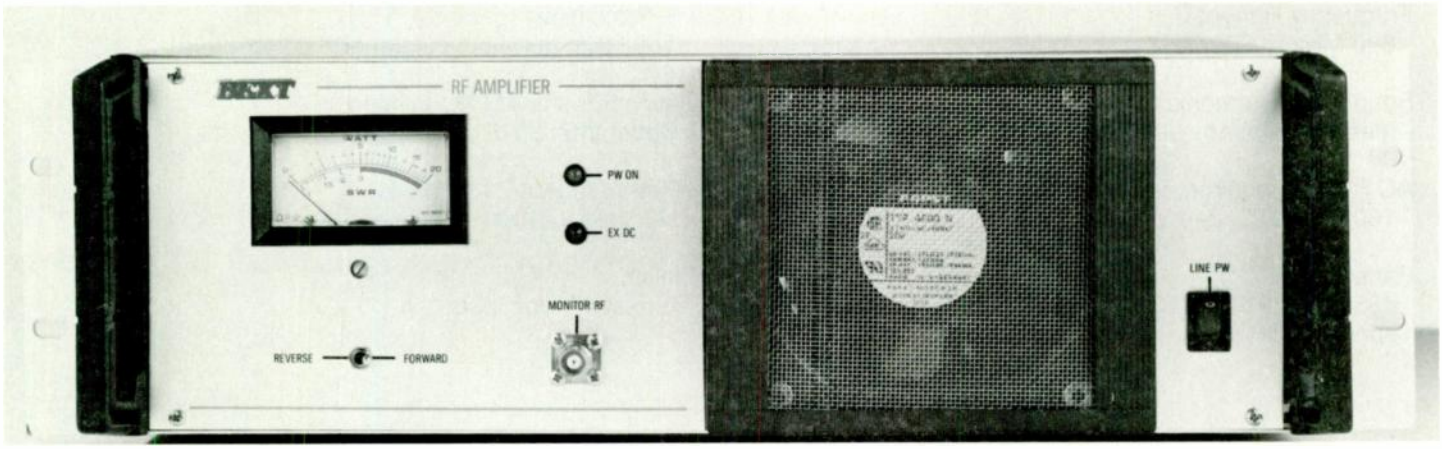
619-239-8462
FAX: 619-239-8474

Features and specifications subject to change without notice.

BEXT

STL 15

15 W Amplifier



- High output power for long or difficult STL paths
- Total insensitivity to antenna problems through built-in circulator system
- 12 VDC input for direct hook-up to back-up battery
- Compact size
- Meets or exceeds all FCC and CCIR requirements

619-239-8462
FAX: 619-239-8474

BEXT

STL 15 Amplifier

Rated Output Power:
> 15 W (typical 18)

RF Drive Requirement:
300 mW (+/- 50 mW)

RF Output Connector/Impedance:
"N" type / 50 Ohm

Frequency Range:
880 MHz to 960 MHz

Spurious & Harmonic Suppression:
Meets or exceeds all FCC and CCIR requirements

AC Power Requirements:
100, 120, 220, 240 VAC, 120 VA or 12.5 V DC, 6.5 A

Panel Size:
483 mm (19") W x 132 mm (5 1/4") H (3 standard rack spaces high)

Overall Depth:
483 mm (19")

Weight:
13 Kg (28 1/2 Lbs)

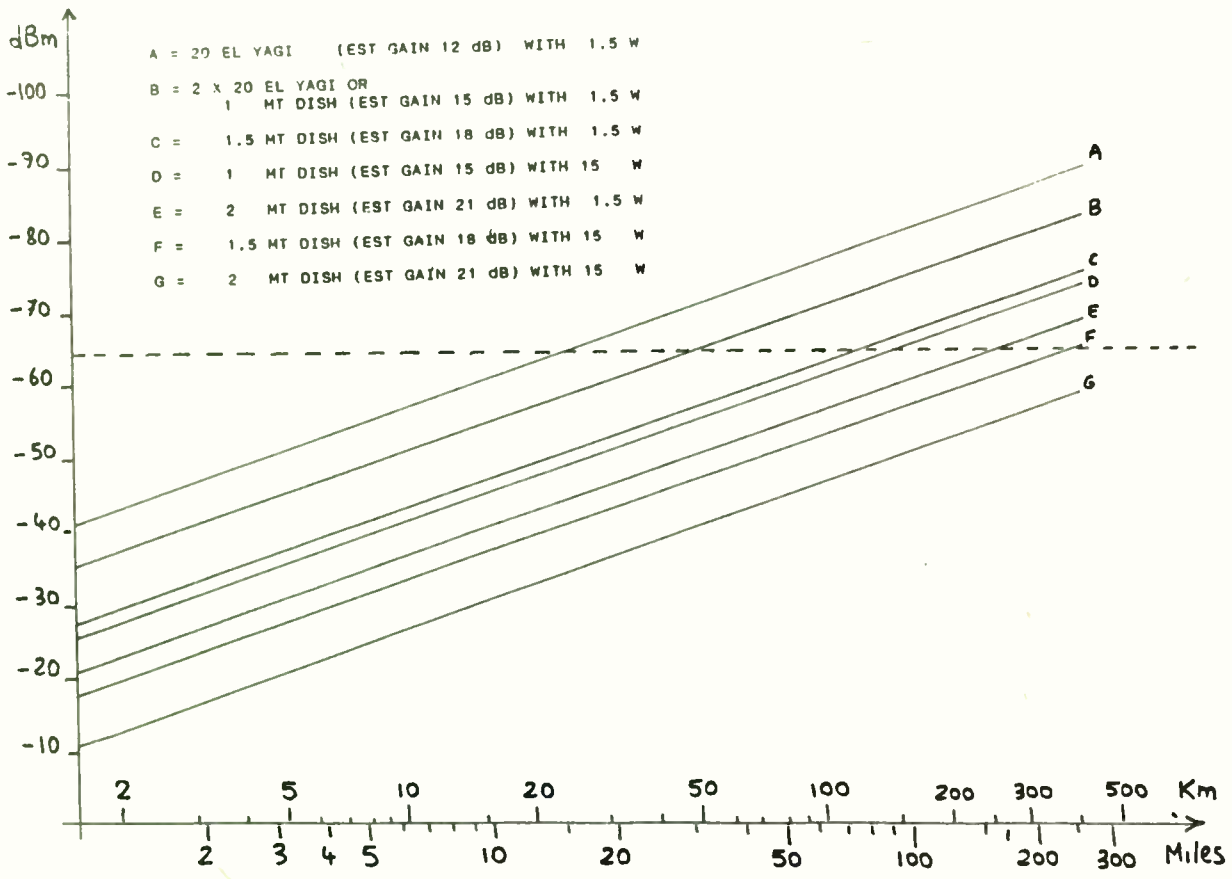
Ambient Temperature Range:
0° C to 40° C (32° F to 104° F)

RF Protection:
Total with built in circulator and dummy load

Asynchronous AM Modulation:
Better than 80 dB

Synchronous AM Modulation:
Not measurable

Finish:
Anodized Aluminum



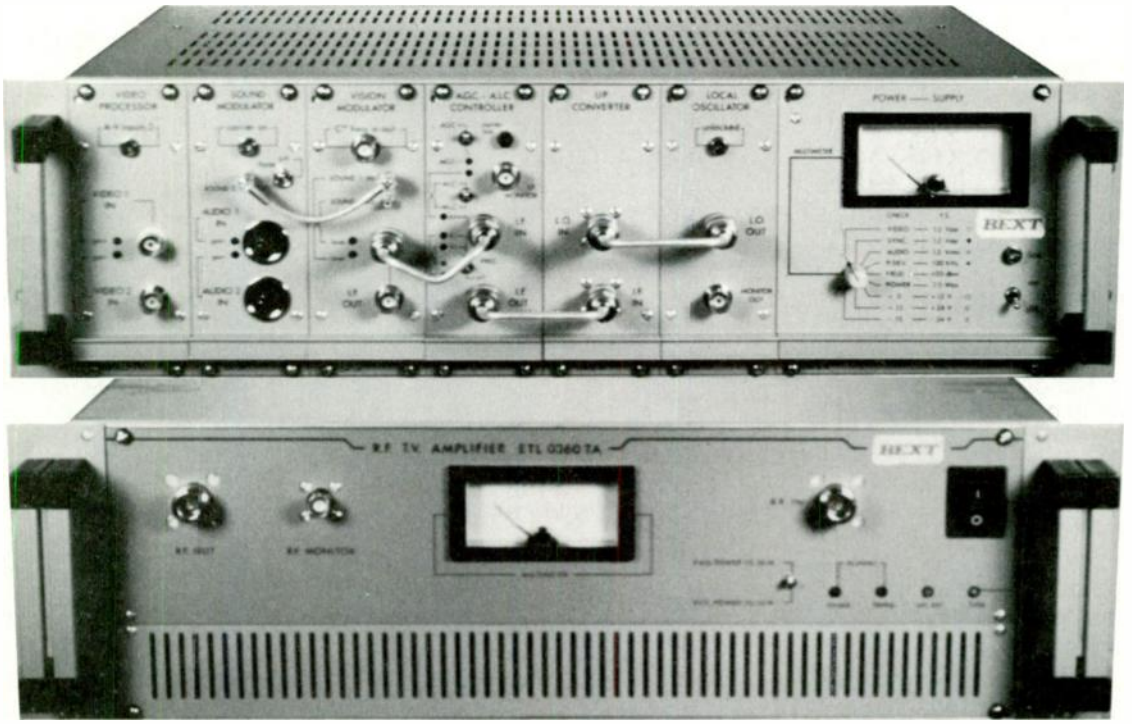
619-239-8462
FAX: 619-239-8474

Features and specifications subject to change without notice.

BEXT

2 - 100 W UHF TV

2/5/10 W UHF TV Exciters/Transmitters and 25/50/100 W UHF TV Amplifiers



- Two baseband inputs with automatic switching
- Exciters/transmitters also available as translators with VHF or UHF input
- Group delay pre-correction
- Available for offset configuration
- Hum rejection input
- Stereo/dual sound compatible
- Meets or exceeds all FCC and CCIR requirements

619-239-8462
FAX: 619-239-8474

BEXT

2 - 100 W UHF TV Exciters/Transmitters and Amplifiers

Video Input Impedance:	75 Ohm
Video Input Level:	1 VP-P +/- 3 dB
Video Common Mode Rejection:	40 dB typ, on main baseband input
Video Main to Secondary Input Separation:	> 56 dB, within 5 MHz
Audio Input Impedance:	5K Ohm, balanced
Audio Input Level:	-12 dBm to +6 dBm
Audio Main to Secondary Input Separation:	> 70 dB
Video IF Output Level:	-7 dBm
Video IF Frequency Response:	+/- 0.25 dB, 25 Hz to 4.8 MHz
Video IF Differential Gain at 4.43 MHz:	< 2%
Video IF Differential Phase at 4.43 MHz:	< 2°
Video IF Group Delay (with pre-corrector and vestigial filter on):	< 40 ns within 4.8 MHz
Video IF Signal to Noise Ratio:	65 dB or better, weighted
Video IF White Limiter:	95% for F < 1 MHz
Audio IF Frequency Response:	+/- 0.5 dB, 30 - 15 KHz with pre-emphasis and de-emphasis
Audio IF Distortion:	< 0.4 %
Audio IF Signal to Noise Ratio:	65 dB or better, non weighted
RF Frequency Range:	UHF band, 470 - 860 MHz (specify channel)
RF Output Impedance/Connector:	50 Ohm/"N" type
RF Intermodulation:	-64 dB or better, with AM pre-corrector -54 dB or better, without AM pre-corrector
RF Differential Gain:	< 3%
RF Differential Phase:	< 3°
RF Group Delay:	< 50 ns, from F -0.6 TO F +5 MHz
RF Sync Compression:	< 3%
RF Video Signal to Noise Ratio:	-56 dB or better, 50 KHz dev intercarrier meas.
RF Frequency Response:	+/- 0.25 dB or better, F -0.5 MHz to +5 MHz
RF Output Power:	2, 5 or 10 W
RF Output Power with Optional Model TB 360, TA 370 and TC 370 Amplifiers:	25, 50 or 100 W
AC Line Requirement:	220 V AC 60 Hz
Front Panel Size, 2, 5, or 10 W Exciters/Transmitters:	483 mm (19") W x 132 mm (5 1/4") H (3 standard rack spaces high)
Front Panel Size, 25, 50, or 100 W Amplifiers:	483 mm (19") W x 132 mm (5 1/4") H (3 standard rack spaces high)

The 2/5/10 W Drivers are also available as translators with VHF or UHF input.

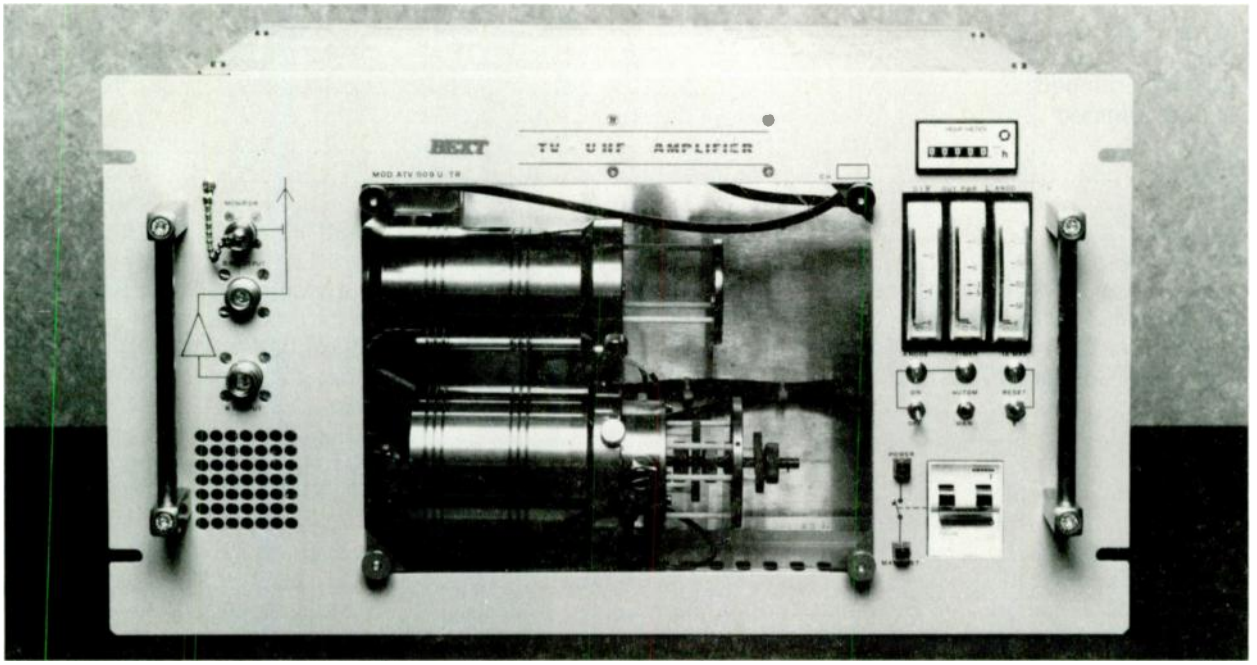
619-239-8462
FAX: 619-239-8474

Features and specifications subject to change without notice.

BEXT

NS 100

UHF TV Amplifier



- Compact size, fits into standard 19" rack cabinets
- Single tube
- Field proven, stable and reliable configuration for long tube life
- Plate voltage and all other voltages regulated through unique ferro-resonance power supply design
- Constant output power even within +/- 20% AC line fluctuations
- Stainless steel cabinet and copper + silver + rhodium plated cavity for maximized consistency in performance
- Protections on all main parameters with automatic restarting
- Modular design for easy access
- Compatible with remote control systems
- Meets or exceeds FCC and CCIR requirements

619-239-8462
FAX: 619-239-8474

Technical Specifications

BEXT

NS 100 UHF TV Amplifier

Output Power (V/A):	100 W (Peak Visual)/10 W
Drive Requirement for 100 W Output (V/A):	2.5 W (Peak Visual)/0.25 W
Tube Complement:	Siemens YD1381
Frequency Range:	470 - 860 MHz
Approx Gain:	16 dB
Output Connector/Imped:	"N" typE/50 Ohm
Input Connector/Imped:	"N" type/50 Ohm
Input VSWR:	1.2 or better
Input Matching:	Isolator/load in line
Bandwidth:	8.5 MHz at +/- 0.5 dB
Intermodulation:	-52 dB or better, measured with three tones: fv - 8 dB, fs - 10 dB, Fsb - 16 dB
Harmonic Suppression:	60 dB or better below PV
Spurious Suppression Measured Without Notch Filter:	60 dB or better below PV for products at 10 MHz or more from PV 40 dB or better below PV for products within 10 MHz from PV
Spurious Suppression measured with notch filter:	60 dB or better below PV for all products
RF Monitor Level/Connector:	Approx -37 dB below PV/BNC connector
Plate Voltage:	1500 V
Plate Current:	130 mA (idle/no drive) 140/150 mA (high/low band, at rated power) 170/190 mA (high/low band, black level) 250 mA (overload intervention)
Max Plate Dissipation:	250 W
Bias Voltage:	-12 TO -16 Vdc
Filament Voltage:	6 Vac +/- 2%
Filament Current:	1.3 A
AC Line Requirement:	220 Vac single phase +/- 20% 60 Hz +/- 2% (50 Hz +/- 2% on req)
AC Line and Ground Connection:	Hard wired
Typical Power Consumption:	550 VA at rated power
Power Factor:	0.9 or better
Protection Circuits:	Plate overload, main AC line (4 A max), filament (0.5 A max), control system (0.5 A max)
Remote On Off:	6 - 7 NC contacts on terminal board
Remote Plate Voltage:	14 - 29 NC contacts on terminal board
Ambient Temperature:	+5 C (+40 F) to +45 C (+112 F)
Relative Humidity:	< 90%
Max Altitude:	2000 m above sea level
Front Panel Size:	483 mm (19") W x 266 mm (10 1/2") H (6 rack spaces high)
Overall Depth:	420 mm (16 1/2")
Weight:	40 Kg (88 Lbs)

619-239-8462
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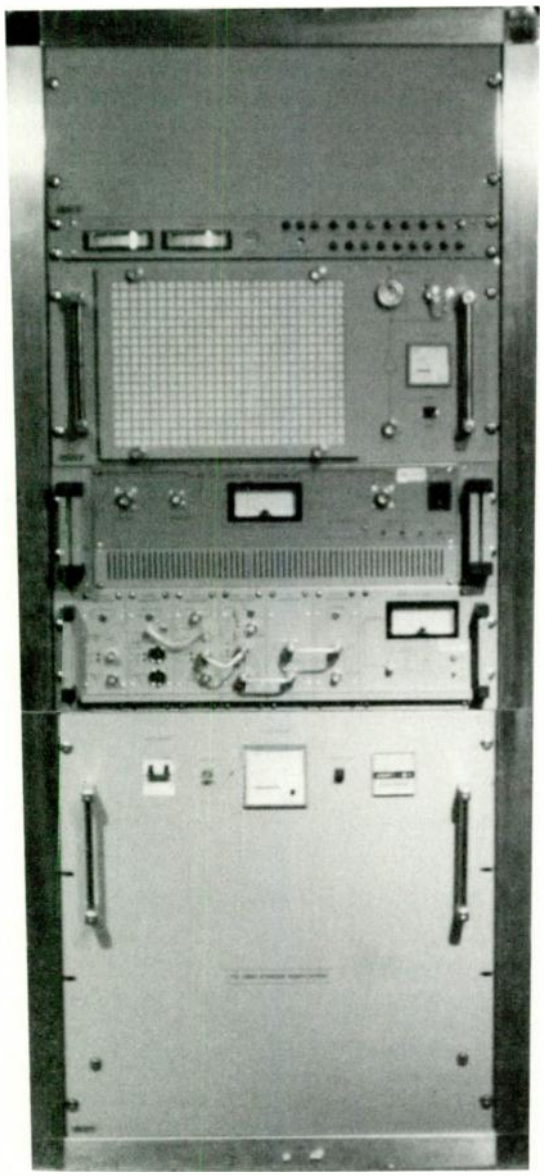
Features and specifications subject to change without notice.

BEXT

NS 1000S

UHF TV Amplifier



- Compact size, fits into standard 19" rack cabinets
- Single tube
- Field proven, stable and reliable configuration for long tube life
- Plate voltage and all other voltages regulated through unique ferro-resonance power supply design
- Constant output power even within +/-15% AC line fluctuations
- Stainless steel cabinet and copper + silver + rhodium plated cavity for maximized consistency in performance
- Protections on all main parameters with automatic restarting
- Modular design for easy access
- Compatible with remote control systems
- Meets or exceeds FCC and CCIR requirements

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FAX: 619-239-8474

Technical Specifications

BEXT

NS 1000S UHF TV Amplifier

Output Power (V/A):
1000 W (Peak Visual)/100 W

Drive Requirement for 1000 W Output (V/A):
25 W (Peak Visual)/2.5 W

Tube Complement:
Siemens YL1057

Frequency Range:
470 - 860 MHz

Approx Gain:
16.5 dB

Output Connector/Imped:
7/8" flange/50 Ohm

Input Connector/Imped:
"N" type/50 Ohm

Input VSWR:
1.2 or better

Input Matching:
Isolator/load in line

Bandwidth:
8.5 MHz at +/- 0.5 dB

Intermodulation:
-53 dB or better, measured with three tones: Fv - 8 dB, FS - 10 dB, Fsb - 16 dB

Harmonic Suppression:
60 dB or better below PV

Spurious Suppression Measured Without Notch Filter:
60 dB or better below PV for products at 10 MHz or more from PV
40 dB or better below PV for products within 10 MHz from PV

Spurious Suppression Measured With Notch Filter:
60 dB or better below PV for all products

RF Monitor Level/Connector:
Approx -47 dB below PV/BNC connector

Plate Voltage:
3.2 KV

Plate Current:
400 mA (idle/no drive)
450/550 mA (high/low band, at rated power)
700/800 mA (high/low band, black level)
950 mA (overload intervention)

Max Plate Dissipation:
2 KW

Bias Voltage:
-25 TO -55 VDC

Screen Grid:
600 V

Filament Voltage:
3.8 V DC +/-5%

Filament Current:
19.5 A +/-2A

AC Line Requirement:
220 VAC single phase +/- 15% 60 Hz +/- 2% (50 Hz +/- 2% on request)

AC Line and Ground Connection:
Hard wired. Typical power consump 3600 VA at rated power

Power Factor:
0.9 or better

Protection Circuits:
Excessive VSWR, plate overload, main AC line (25 A max), filament (1 A max), control system (1 A max)

Remote On Off:
10 - 122 NC contacts on terminal board

Remote Plate Voltage:
171 - 55 NC contacts on terminal board

Driver Enable:
11 - 12 contacts closed in presence of high voltage (max 1 A 24 VDC)

Remote Control (TLC/TLS):
M 10 on terminal board

Ambient Temperature:
+5 C (+40 F) to +45 C (+112 F)

Relative Humidity:
< 90%

Max Altitude:
2000 m above sea level

Dimensions:
33 rack spaces cabinet 587 mm x 1552 mm x 750 mm (W x H x D) (23" x 61" x 29 1/2")

Power Supply Module:
19" W x 11 rack spaces H x 23" (600 mm deep)
Cavity Module:
19" 5 rack spaces H x 23" (600 mm deep)
Safety Module:
19" 4 rack spaces H x 23" (600 mm deep)
Notch Filter Module:
19" 3 rack spaces H x 14 1/2" (370 mm deep)
Control System:
19" 1 rack space H x 6" (150 mm deep)

Weights:
Cabinet: 85 Kg (187 Lbs)
Power supply module: 117 Kg (257 Lbs)
Cavity module: 40 Kg (88 Lbs)
Safety Module: 20 Kg (44 Lbs)
Notch Filter: 12 Kg (25 Lbs)
Control System: 2 Kg (4 1/2 Lbs)

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FAX: 619-239-8474

Features and specifications subject to change without notice.

NEW TWO YEAR WARRANTY

BEXT

USED - 3395 - SOLD!!

APRIL 1, 1992

RADIO BROADCAST LINE PRICE SCHEDULE

				APPROX DELIVERY
FM EXCITERS/LOW POWER TRANSMITTERS - TRANSLATORS/BOOSTERS:				
P 2	FRONT PANEL PROGRAMMABLE DC 12-13.8V	1W	$ 1,695	STOCK
P 10	FRONT PANEL PROGRAMMABLE DC 12-13.8V	10W	1,895	STOCK
TEX 20	FRONT PANEL PROGRAMMABLE 117/230V SINGLE PHASE	20W	2,795	STOCK
PTX 30	FRONT PANEL PROGRAMMABLE 117/230V SINGLE PHASE	30W	3,595	STOCK
PTX 80	FRONT PANEL PROGRAMMABLE 117/230V SINGLE PHASE	80W	4,495	STOCK
PTX 80/92	FRONT PANEL PROGRAMMABLE 117/230V SINGLE PHASE	100W	4,695	STOCK
HPT	FRONT PANEL PROGRAMMABLE 117/230V S.P.+ DC 12V	20W	3,695	C.F.
HPT FMR	HPT EXCITER with built-in 88-108 MHz band COMPOSITE PROGRAMMABLE RECEIVER and input for local audio		3,985	C.F.
HPT STL	HPT EXCITER with built in 945-952 MHz band COMPOSITE PROGRAMMABLE RECEIVER and input for local audio (can be custom ordered on other input frequency)		3,985	C.F.
HPT SGN	HPT EXCITER with built-in STEREO GENERATOR to allow separate L & R input		3,985	C.F.
Optional pre-programmed FSK ID keyer for all HPT's			195	C.F.

All exciters can be used as stand alone low power transmitters, include low pass/harmonic filter, are instantly programmable with no tuning over the entire FM band and can be custom phase locked to an external reference for synchronous translator/booster applications.

LCR-FM	COMPOSITE RECEIVER, FRONT PANEL PROGRAMMABLE 88-108 MHz band for use with any exciter to form a complete translator or booster station	2,195	STOCK
LCR-STL	SAME AS LCR-FM BUT ON 945-952 MHz BAND	2,195	STOCK

FM SOLID STATE BROADBAND AMPLIFIERS:							
PJ 100	117/230V	SINGLE PHASE	15-20W DRIVE	100W OUT	2,995	STOCK
PJ 200	117/230V	SINGLE PHASE	15-20W DRIVE	200W OUT	3,195	4-6WKS
PJ 250	117/230V	SINGLE PHASE	20-25W DRIVE	250W OUT	3,695	STOCK
		OPTIONAL	10W DRIVE	250W OUT	3,895	STOCK
PJ 501	117/230V	SINGLE PHASE	10-15W DRIVE	500W OUT	5,995	STOCK
PJ 1002	117/230V	SINGLE PHASE	25-30W DRIVE	1000W OUT	11,995	2-4WKS

All solid state amplifiers include low pass/harmonic filter, are remote control ready and require no tuning over the FM band.

COMPLETE FM TRANSMITTER SYSTEMS, TOTALLY SOLID STATE:			
100W	SYSTEM, TEX 20 EXCITER + PJ 100	5,790	STOCK
200W	SYSTEM, TEX 20 EXCITER + PJ 200	5,990	4-6WKS
250W	SYSTEM, TEX 20 EXCITER + PJ 250	6,490	STOCK
500W	SYSTEM, TEX 20 EXCITER + PJ 501	8,790	STOCK
1000W	SYSTEM, PTX 30 EXCITER + PJ 1002	14,990	2-4WKS

All solid state transmitter systems include low pass/harmonic filters, are remote control ready, are instantly programmable with no tuning over the entire FM band and can be custom phase locked to an external reference for synchronous translator/booster applications.

Prices are net and are quoted ex works (no crating). Crating is quoted as a separate item if required. Prices, specifications and expected approximate delivery charges subject to change and all merchandise sold in accordance with the terms and conditions listed in the Bext, Inc. conditions of contract.

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NEW TWO YEAR WARRANTY

BEXT

APRIL 1, 1992 — RADIO BROADCAST LINE PRICE SCHEDULE — APPROX DELIVERY

FM AMPLIFIERS, SINGLE TUBE TYPE:

T 800	(3CX800)	20-25W DRIVE, 800W OUT	$6,495	1-3WKS
T 1200	(3CX1500)	20-25W DRIVE, 1000W OUT	7,995	1-3WKS
	or	25-30W DRIVE, 1200W OUT	7,995	1-3WKS
T 1500	(3CX1500)	45-50W DRIVE, 1500W OUT	8,995	1-3WKS
T 1800	(3CX1500)	60-65W DRIVE, 1800W OUT	9,795	STOCK
T 2000	(3CX1500)	65-70W DRIVE, 2000W OUT	9,995	1-3WKS
T 5000	(3CX3000)	200W DRIVE, 3.0KW OUT	18,995	4-6WKS
	or	250W DRIVE, 3.5KW OUT	18,995	4-6WKS
	or	400W DRIVE, 5.0KW OUT	18,995	4-6WKS
T 15000	(3CX15000)	400W DRIVE, 10KW OUT	32,995	6-8WKS
	or	800-1000W DRIVE, 15KW OUT	32,995	6-8WKS
T 20000	(3CX15000)	1500W DRIVE, 20KW OUT	38,995	6-8WKS
T 30000	(3CX20000)	1200W DRIVE, 30KW OUT	48,995	6-8WKS

All amplifiers include low pass/harmonic filter and are remote control ready. Standard wiring is: 230V single phase for T 800, T 1200, T 1500, T 1800; 230V three phase for T 2000, T 5000, T 15000, T 20000 and T 30000. Other configurations may be quoted as custom options.

COMPLETE FM TRANSMITTER SYSTEMS, TUBE TYPE:

800W SYSTEM,	TEX 20 + T 800	8,990	1-3WKS
1000W SYSTEM,	TEX 20 + T 1200	9,990	1-3WKS
1200W SYSTEM,	PTX 30 + T 1200	11,590	1-3WKS
1500W SYSTEM,	PTX 80 + T 1500	13,490	1-3WKS
1800W SYSTEM,	PTX 80 + T 1800	14,290	STOCK
2000W SYSTEM,	PTX 80 + T 2000	14,490	1-3WKS
3000W SYSTEM,	TEX 20 + PJ 200 + T 5000	24,985	4-6WKS
3500W SYSTEM,	TEX 20 + PJ 250 + T 5000	25,485	4-6WKS
5000W SYSTEM,	TEX 20 + PJ 501 + T 5000	27,785	4-6WKS
10000W SYSTEM,	TEX 20 + PJ 501 + T 15000	40,985	6-8WKS
15000W SYSTEM,	TEX 20 + T 1200 + T 15000	42,985	6-8WKS
15000W SYSTEM,	TEX 20 + PJ 1002 + T 15000	47,785	6-8WKS
20000W SYSTEM,	PTX 80 + T 1500 + T 20000	51,985	6-8WKS
30000W SYSTEM,	PTX 30 + T 1200 + T 30000	59,985	6-8WKS

All tube type complete FM transmitter systems include low pass/harmonic filters, are remote control ready and can be custom phase locked to an external reference for synchronous translator/booster applications. Single phase or three phase configurations are available, also see section under FM amplifiers.

MISCELLANEOUS:

ADDITIONAL MANUALS, EACH		25	STOCK
FM LOW PASS/HARMONIC FILTER, N-N IN-OUT, 1KW MAX		275	STOCK
260	BROADCAST STEREO MULTIFUNCTION LIMITER-PROCESSOR FOR FM	1,030	1-3WKS
705	HIGH PERFORMANCE FM STEREO GENERATOR	1,375	STOCK
PS 1	PILOT SYNCHRONIZER	1,695	8-9WKS
7/8 "- N	ADAPTER to bypass amplifiers with 7/8" output for servicing or emergencies (connects driver to ant.)	195	STOCK

For custom phase locking exciters (synchronous booster applications) the cost will be quoted on a case by case basis.

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NEW TWO YEAR WARRANTY

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APRIL 1, 1992 — RADIO BROADCAST LINE PRICE SCHEDULE — APPROX DELIVERY

COMPOSITE FRONT PANEL PROGRAMMABLE 945 - 952 MHz AURAL STL's:

1.5W	LC STL SYSTEM,	LCR RECEIVER + 1.5W LCT TRANSMITTER	$ 3,980	STOCK
6W	LC STL SYSTEM,	LCR RECEIVER + 6W LCT/6 TRANSMITTER	5,280	STOCK
15W	LC STL SYSTEM,	LCR REC + 1.5W LCT TRANSM + 15W AMP	6,775	STOCK
1.5W	SD STL SYSTEM,	SDR RECEIVER + 1.5W SDT TRANSMITTER	6,290	STOCK
15W	SD STL SYSTEM,	SDR REC + 1.5W SDT TRANSM + 15W AMP	9,085	STOCK
1.5W	LCT-STL TRANSMITTER,	0-100 KHz BASEBAND IN, 1.5W OUT	1,985	STOCK
6W	LCT/6-STL TRANSMITTER,	0-100 KHz BASEBAND IN, 6W OUT	3,095	STOCK
1.5W	SDT-STL TRANSMITTER,	0-200 KHz BASEBAND IN, 1.5W OUT	2,995	STOCK
LCR-STL	RECEIVER,	0-100 KHz BASEBAND OUTPUT	2,195	STOCK
SDR-STL	RECEIVER,	0-100 KHz + 100-200 KHz OUTPUTS	3,495	STOCK
15W STL	AMPLIFIER,	300mW DRIVE 15W OUT (TYP. 20)	2,795	STOCK

The above STL systems can be special ordered for custom frequencies in the 360 - 960 MHz range (1.5W systems) and in the 760 - 960 MHz range (6W and 15W systems).

COMPOSITE FRONT PANEL PROGRAMMABLE 1.5 - 2.5 GHz AURAL STL:

1W	GH STL SYSTEM	0 - 200 KHz BASEBAND IN/OUT	10,980	C.F.

All STL's can be powered by 117/230V S phase or 12V DC. Cost for optional built-in stereo generator available for all STL transmitters is $895.

RECOMMENDED SPARE PARTS KITS:

RECOMMENDED SPARES (semiconductors, etc.) for:	P2	70	6-8WKS
RECOMMENDED SPARES (semiconductors, etc.) for:	P10	140	6-8WKS
RECOMMENDED SPARES (semiconductors, etc.) for:	TEX 20	280	STOCK
ADDITIONAL MAIN SPARES (transformer, fan, etc.) for:	TEX 20	240	6-8WKS
RECOMMENDED SPARES (semiconductors, etc.) for:	PTX 30	340	6-8WKS
ADDITIONAL MAIN SPARES (transformer, fan, etc.) for:	PTX 30	280	6-8WKS
RECOMMENDED SPARES (semiconductors, etc.) for:	PTX 80	380	6-8WKS
ADDITIONAL MAIN SPARES (transformer, fan, etc.) for:	PTX 80	340	6-8WKS
RECOMMENDED SPARES (semiconductors, etc.) for:	PJ 100	390	6-8WKS
ADDITIONAL MAIN SPARES (transformer, fan, etc.) for:	PJ 100	290	6-8WKS
RECOMMENDED SPARES (semiconductors, etc.) for:	PJ 200	490	6-8WKS
ADDITIONAL MAIN SPARES (transformer, fans, etc.) for:	PJ 200	390	6-8WKS
RECOMMENDED SPARES (semiconductors, etc.) for:	PJ 250	590	6-8WKS
ADDITIONAL MAIN SPARES (transformer, fans, etc.) for:	PJ 250	390	6-8WKS
RECOMMENDED SPARES (semiconductors, etc.) for:	PJ 501	990	6-8WKS
ADDITIONAL MAIN SPARES (transformer, fans, etc.) for	PJ 501	580	6-8WKS
RECOMMENDED SPARES (semiconductors, etc.) for:	PJ 1002	1,980	6-8WKS
ADDITIONAL MAIN SPARES (transformer, fans, etc.) for:	PJ 1002	1,160	6-8WKS

STANDARD CRATING CHARGES:

PJ 501 and NS 100	200
T 800, T 1200, T 1500, T 1800, T 2000	300
NS 220, NS 500, PJ 1002 and NS 1000	400
T 5000	800
T 15000 and T 20000	1200
T 30000 and NS 5000	2500
NS 10000	3000
NS 20000	3500

All other items are normally boxed at no additional charge.

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NEW TWO YEAR WARRANTY

BEXT

APRIL 1, 1992 — TELEVISION BROADCAST LINE PRICE SCHEDULE — APPROX DELIVERY

SOLID STATE TV EXCITERS/LOW POWER TRANSMITTERS:

TA 280	AUDIO & VIDEO IN, UHF or VHF	2W OUT		$ 6,985	2-5WKS
TB 280	AUDIO & VIDEO IN, UHF or VHF	5W OUT		7,485	2-5WKS
TC 280	AUDIO & VIDEO IN, UHF or VHF	10W OUT		9,485	2-5WKS

SOLID STATE TV TRANSLATORS/DRIVERS:

TA 290	UHF OR VHF IN, UHF OR VHF	2W OUT		6,985	7-9WKS
TB 290	UHF OR VHF IN, UHF OR VHF	5W OUT		7,485	7-9WKS
TC 290	UHF OR VHF IN, UHF OR VHF	10W OUT		9,485	7-9WKS

SOLID STATE TV AMPLIFIERS:

TB 360	5W IN, UHF or VHF	25W OUT		5,585	2-5WKS
TA 370	0.5W IN, UHF or VHF	50W OUT		9,485	7-9WKS
TB 370	1W IN, VHF	100W OUT		10,485	7-9WKS
TC 370	1W IN, UHF	100W OUT		11,985	7-9WKS

SINGLE TUBE TV AMPLIFIERS:

NS 100	(YD1381)	3W IN, UHF	100W OUT		9,985	2-4WKS
NS 220	(TH 339)	5W IN, UHF	220W OUT		16,985	6-8WKS
NS 500	(YL1056)	10W IN, UHF	500W OUT		21,985	6-8WKS
NS 1000 S	(YL1057)	25W IN, UHF	1000W OUT		31,985	2-4WKS
NS 1000 T	(TH 347/EY 834)	35W IN, UHF or VHF	1000W OUT		46,985	7-9WKS
NS 2000	(TH 393)	60W IN, UHF	2000W OUT		77,985	C.F.
NS 5000	(RS 1034L)	200W IN, UHF	5000W OUT		89,985	7-9WKS
NS 10000, NS 20000					C.F.	C.F.

COMPLETE TV TRANSMITTER SYSTEMS:

2W	SYSTEM (TA280 or 290) ALL SOLID STATE	UHF or VHF OUT	6,985	2-5WKS
5W	SYSTEM (TB280 or 290) ALL SOLID STATE	UHF or VHF OUT	7,485	2-5WKS
10W	SYSTEM (TC280 or 290) ALL SOLID STATE	UHF or VHF OUT	9,485	2-5WKS
25W	SYSTEM (TB280 or 290 + TB360) ALL S/S	UHF or VHF OUT	12,985	2-5WKS
50W	SYSTEM (TA280 or 290 + TA370) ALL S/S	UHF or VHF OUT	16,385	7-9WKS
100W	SYSTEM (TA280 or 290 + TB370) ALL S/S	VHF OUT	17,385	7-9WKS
100W	SYSTEM (TA280 or 290 + TC370) ALL S/S	UHF OUT	18,885	7-9WKS
100W	SYSTEM (TB280 or 290 + NS100) SINGLE TUBE	UHF OUT	15,985	2-5WKS
220W	SYSTEM (TB280 or 290 + NS220) SINGLE TUBE	UHF OUT	24,385	6-8WKS
500W	SYSTEM (TC280 or 290 + NS500) SINGLE TUBE	UHF OUT	30,885	6-8WKS
1000W	SYSTEM S (TB280 or 290 + TB360 + NS1000S) ST	UHF OUT	39,985	2-5WKS
1000W	SYSTEM T (TA280 or 290 + TA370 + NS1000T) ST	VHF OUT	62,985	7-9WKS
1000W	SYSTEM T (TA280 or 290 + TA370 + NS1000T) ST	UHF OUT	62,985	7-9WKS
2000W	SYSTEM (TB280 or 290 + NS100 + NS2000)	UHF OUT	94,885	C.F.
5000W	SYSTEM (TB280 or 290 + NS220 + NS5000)	UHF OUT	113,985	7-9WKS
10000W	SYSTEM, 20000W SYSTEM		C.F.	C.F.

280 SERIES DRIVERS are for AUDIO & VIDEO input, while 290 SERIES DRIVERS are for VHF OR UHF input (translator use). Please specify channel(s) when ordering. Standard wiring is: 230V three phase for 2000W and up, 230V single phase for up to 1000W. 1000W and up are housed in 19" rack cabinets; all others fit inside standard 19" rack cabinets, but cabinets are not included and may be quoted if required. All equipment up to 100W does not include output notch filter (improves sideband products suppression to > 60 dB). Cost for optional output notch filter is $1,290. All listed TV equipment above 100W includes notch filter. Cost for optional FSK KEYER is $690.

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BEXT

BEXT LIMITED TWO YEAR WARRANTY POLICY

All the new units of the BEXT Broadcast line are under warranty for a period of two years from the date of the original purchase, according to the original invoice or bill of sale which you will need to retain and show to obtain warranty service.

The warranty includes all costs of parts and labor (with few exceptions, see below) to repair units when it has been determined that they are not performing satisfactorily, except when the malfunction is due to improper use or to transportation damage or to acts of God. In such cases BEXT will still repair the units, but will charge the end user or the shipping company accordingly. Some parts like vacuum tubes, semiconductors, cooling fans and similar standard commercial components are covered by the individual manufacturers' warranties and policies.

All repairs are intended to be performed at the BEXT Inc. main facility unless otherwise specified by BEXT Inc. The warranty does not include shipping charges and all the costs and arrangements for transportation and insurance will be the responsibility of the user. For those cases where it will be determined that the repairs will not be performed at the BEXT Inc. main facility, all travel and lodging expenses for the necessary BEXT personnel will be incurred by the user. All returns for repairs must be sent freight prepaid and follow the procedures stated on the first pages of the BEXT manual. The BEXT main laboratory's phone number is (619) 448-2651. The 24 hour a day field support service can be paged by dialing (619) 529-4711. BEXT can also be reached during standard business hours at (619) 239-8462.

In no event shall BEXT be liable for any indirect, incidental or consequential damages from the sale or use of the product. This disclaimer applies both during and after the term of the warranty.

619-239-8462
FAX: 619-239-8474

"They do what they say they'll do."

Larry Boyd is the engineer for LPTV channel 57, serving Crawford County, Ill. Their BEXT 1000W transmitter has been on the air since January.

"We bought the BEXT based on its low cost, but we are very impressed with its sturdy construction. It's a good, solid transmitter, operating non-stop with no problems.

"And the company has bent over backwards to answer our questions, even calling back to follow up. We're very satisfied."

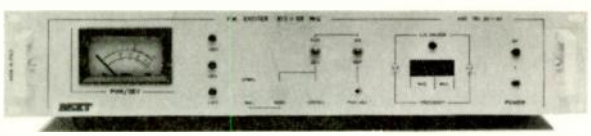
From 2 to 20,000 watts, UHF or VHF, solid state or tube type, find out what BEXT can do for you.

Call for more references or technical reasons to choose BEXT.

739 5th Avenue San Diego, CA 619-239-8462 BEXT

World proven. And improved.

First, there was the original TEX-20 FM exciter from BEXT. It was bulletproof. It was priced right. It found its way into over two thousand FM stations around the world. Owners raved.



Next, this popular exciter was redesigned.

Front panel frequency selection, a BEXT advantage, is now accomplished in 10 kHz increments. Custom phase locking is provided for compatibility with external references. The TEX-20's internal layout is now completely modular, so testing and service are accomplished easily and quickly. The capacity to run on 24 volt DC is added. Main operating parameters are brought out to the back panel for remote control, including remote raising and lowering of output power. Specifications are enhanced.

Now, stations have found the TEX-20 "flawless" and "perfect in every way" (we're not making this up). Nearly three thousand are in the field, in most cases with BEXT amplifiers at the output. More and more FM's are finding that they don't need to spend more to get more reliability, features, or performance from their transmitters.

The TEX-20 is a phase locked loop exciter with continuously variable output power from 2W to 20W - other BEXT exciters produce up to 80W. Our FM amplifiers are available from 100W to 30,000W (the solid state, broadband, 250W and 500W are our most popular). Delivery is prompt, direct from our San Diego offices.

Call BEXT today for more details on our wide range of products.

The BEXT 24-hour service hotline: 619-448-2651

739 5th Avenue
San Diego, CA 92101
619-239-8462 BEXT

BEXT TEX-20 FM Exciter
Offers Front Panel Programmability

This phase locked loop FM exciter has proven itself in stations around the world. Now enjoyed by more and more US broadcasters, the TEX-20 is instantly programmable (in 10 Hz increments) to any frequency from 87.5 to 108 mHz. It is completely compatible with external references for custom phase locking in synchronous applications, simply by moving an internal jumper and connecting the reference via a BNC connector on the unit's rear panel. A modular internal design allows the user to insert and pick off signals easily for test, and for easy replacement of new PC boards.

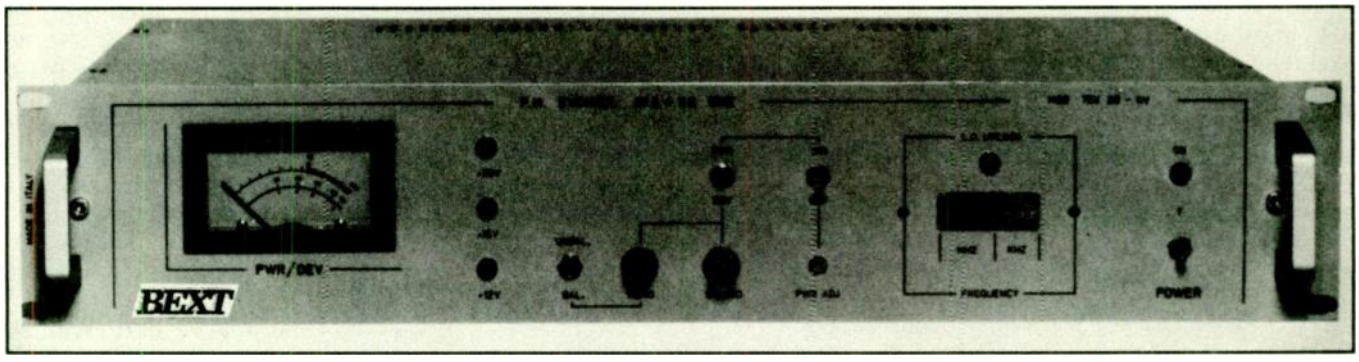
The TEX-20's power output is continuously adjustable from 2W to 20W with automatic power control maintaining the preset level anywhere in the unit's power range. The rear terminal panel also brings out all main parameters for remote control, including remote raising and lowering of output power.

Bob Sauter, Chief Engineer at WSLU in Canton, New York, has two TEX-20's in service (he also supports repeaters WSLO and WSLL). Their public radio programming is received by a BEXT FM receiver and handed as a composite signal to their TEX-20. Bob speaks highly of the equipment and the company.

"It's been a very positive experience working with BEXT. The TEX-20 is flawless. It sounds great, the documentation is good, and the features are right for us. I must say it's been perfect in every way. The BEXT receivers we use are completely immune to the 3000W FM RF directly above the building. As for support, we have always received immediate response from BEXT."

Paul White at AC format WBDX serving Trenton, Georgia, has had his TEX-20 on the air since December, 1989, along with a BEXT T-200 transmitter and STL system. His fifteen-mile STL hop is accomplished with the help of a BEXT 15W amplifier. Of his TEX-20, Paul says the best feature is the front panel programmability. "Soon after we went on the air, we were upgraded from 3000W to 6000W, and ended up swapping frequencies with another applicant in our area. We just walked up to the exciter and STL and dialed in the new numbers. And if we decide to collocate the studios and transmitter, and have to sell our STL system, we'll be able to do so at a premium price. As for BEXT's service, you couldn't ask for it to be better."

The overall quality of the TEX-20 is impressive, with excellent performance specifications. Delivery (which benefits from front panel programmability, since units can be built without regard to to the customer's frequency) is prompt, direct from BEXT's San Diego offices. A 24-hour support hot line keeps the heat off the station engineer.



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WMXR Selects Bext

Bext Offers Quality Audio on a Budget

by Rob Wolf, GM
WMXR

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USER REPORT

Woodstock VT Our station was pieced together in the spring of 1989 with a mix of both new and used equipment. We anticipated replacing much of the original equipment in phases after the first three years, so we felt we had an ability to compromise with used equipment.

The transmitter facility required greater attention than the studios due to its remote access. The half-mile hike to a ridge overlooking the Connecticut River required as maintenance-free a facility as possible while remaining fiscally conservative.

The transmitter, an old ITA model refitted with solid state power supplies, uses composite STLs, a new remote control and 2-bay Jampro antenna coupled with an over-built tower to withstand additional services. The exciter is a Bext PTX 20.

Impressive performance

The performance of the Bext exciter has been impressive. In a technical and financial environment that promotes new and expensive, the quality and cost-effectiveness of Bext deserves attention.

With the anticipated replacement of the entire system with "new" sometime in the future, the Bext will likely be replaced—with another Bext unit. Not just because it is significantly less expensive than other units on the market, but mainly due to its proven reliability and the way it sounds.

Everything should operate right out of the box, right? Wrong. We had a series of malfunctioning new equipment and the Bext was the exception. However, perhaps more than any other factor, the Bext exciter sounds good—better, in my judgment, than other "famous brand" exciters used by the other stations in the market.

The model we currently have on the air is an older unit no longer in production and we understand the current models offer better specifications. Check with Bext for the subtle details. Even intermod specs are very good.

Our PTX 20 accepts one composite, two mono and three SCA inputs easily, with internally adjustable gains for each as well as an overall deviation adjustment on the front panel. Setup was a breeze.

Front panel metering

Perhaps the most helpful detail of the PTX 20 is the front panel metering with three frequently used functions: output power, VSWR and modulation. There's even an accurate peak indicator lamp that helps verify our entire system. Both the meter and peak indicator were proven accurate during our initial setup and proof.

The PTX model uses front panel thumbwheel switches to set up the frequency. Just set it and go. A harmonic filter on the output has helped our ancient transmitter operate cleanly and in a pinch the exciter works well as a 30 W backup transmitter. Our unit feeds a grid excited 250B IPA and the front panel metering makes it easy to tune the tank circuit for minimum VSWR.

The internal base frequency in the frequency synthesizer can be tapped and fed to another Bext exciter for synchronous operation. Our model was not initially designed with this feature in mind and will require more extensive modification than I would care to make in the field. However, the newer models have been developed with this feature and make it easier for synchronous booster operation. At least the frequency will match, if not the overall deviation.

The unit has never failed, and worked right out of the box.

Simple and reliable

The internal workings of the Bext exciter are simple. Since our unit has required no servicing and has been the most reliable piece of equipment we bought, our only internal exploration was for curiosity. The unit has never failed, and worked right out of the box. Even the physical construction lends credibility: It's solid, rugged, looks good, fits into the rack well, etc.

My only criticism is about the front panel meter. Ours "sticks" somewhat in colder weather; and if only it were slightly larger . . .

Why do I recommend Bext? With so much pressure on a broadcaster today, I won't waste time and money. I'd buy a Bext again without hesitation.

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Editor's note: Since this writing, the PTX-20 has been replaced by the TEX-20 (20 Watt) and the PTX-30 (30 Watt). For more info, contact Anne DeFazio at BEXT: 619-239-8462, FAX: 619-239-8474.