

DTX Series

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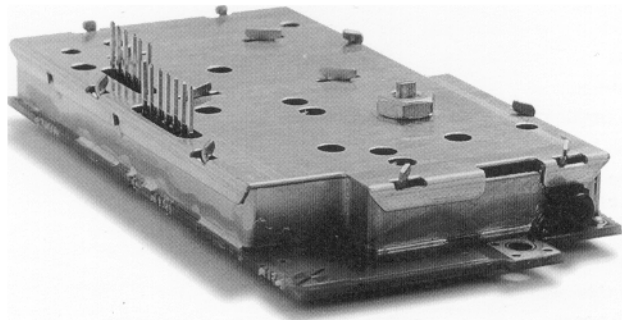
RF Synthesized Transceivers

FEATURES:

- Low Cost
- Small/Compact Size
- Synthesized /PC Programmable
- 5 Watts/Programmable to 2 Watts
- 11 Channel Capability
- CTCSS/DCS Signalling
- Power Saver Modes
- Wide Band Operation
- Local "Radio Test" Capability
- SMD Design
- Made In U.S.A.



Ritron RF Telemetry-The Wireless Connection

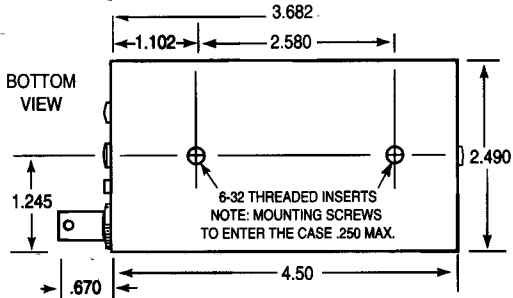
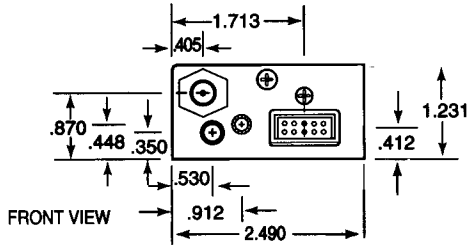


*Rugged and dependable, synthesized RF Transceivers
for OEM or end user's data or voice applications.....*

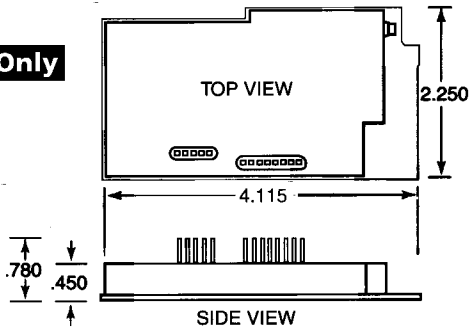
DTX Series RF Synthesized Transceivers

MODULE

RF and Control Board



RF Board Only



AVAILABLE MODELS

RF Transceiver Board and Control Board in Housing.

Module	Frequency
DTX-150-EB	136-151 MHz
DTX-150-OB	150-165 MHz
DTX-150-FB	160-174 MHz
DTX-450-GB	400-430 MHz
DTX-450-OB	450-480 MHz

Models above have a BNC antenna connector. To order with a SMA antenna connector, change the last character of the model number from "B" to "S".

RF Board Only

Module	Frequency
DTX-150-E0DD	136-151 MHz
DTX-150-00DD	150-165 MHz
DTX-150-F0DD	160-174 MHz
DTX-450-G0DD	400-430 MHz
DTX-450-00DD	450-480 MHz

Models above include a 2.5 mm antenna jack. To order with a SMA or BNC antenna connector, contact factory for proper model number.

GENERAL

FCC Identifier:	AIERTX-150 (VHF), AIERTX-450 (UHF)
Emission Designator:	16K0F3E
Frequency Control:	Synthesized, PLL
Frequency Steps:	5 or 12.5 KHz
Number of Channels:	11 with Independent TX/RX Frequencies and Codes
Transmit/Receive Spacing:	15 MHz VHF, 20 MHz UHF
Mode of Operation:	Simplex or Half Duplex
Supply Voltage:	+10-15 VDC with Internal Regulator +8-12 VDC with Internal Regulator bypassed.
RF Input/Output:	BNC, SMA, 2.5mm Female, 50Ω
Power and Data Interface:	10 Pin IDC Box Header
Operating Temperature:	-30 to +60 degrees Centigrade
Maximum Dimensions:	4.5" L, 1.24" H, 2.5" D
Weight:	8.9 oz

TRANSMITTER

Bandspread:	15 MHz VHF, 20 MHz UHF
Frequency Stability:	5 PPM
RF Power Output:	5 Watts, Programmable to 2 Watts
RF Output Impedance:	50Ω
Modulation Distortion:	Less than 4%
Duty Cycle:	50%
Transmitter Attack Time:	14 ms maximum
Spurious and Harmonics:	-50 dBc maximum
FM Hum and Noise:	43 dB
Modulation Input Impedance:	100K Ω @ both Pins 1 and 8
Modulation Response, @ Pin 1:	20-5000 Hz +/- 1.5 dB
Modulation Response, @ Pin 8:	Deviation Limited with 3 KHz Low Pass Filtered, User Selectable: Flat, Pre-emphasized, or 300 Hz High Pass Filtered
Current Drain:	1500 mA @ 10 VDC at 5 Watts, 800 mA @ 10 VDC at 2 Watts

RECEIVER

Bandspread:	15 MHz VHF, 20 MHz UHF
Frequency Stability:	5 PPM
Sensitivity, 12 dB SINAD:	.25 μV VHF, .3 μV UHF
RF Input Impedance:	50 Ω
Selectivity:	70 dB @ 30 KHz, 65 dB @ 25 KHz
Spurious and Image Rejection:	50 dB
Intermodulation:	65 dB
FM Hum and Noise:	45 dB
Conducted Spurious:	-60 dBm VHF, -40 dBm UHF at Rf connector
Receive Current Drain:	65 mA VHF, 75 mA UHF
Receive Attack Time:	<12 ms
Carrier Detect Attack Time:	13 ms @ 1 μV
RSSI Attack Time:	<12 ms @ 1 μV
Audio Distortion:	less than 3%
Audio Output Level:	0-8 Vp-p into 8 Ω
Audio Response:	Internally User Selectable: Flat, De-emphasized, High Pass Filtered

CODED SQUELCH

Programmable Formats:	CTCSS and DCS Encode and Decode Two Tone Sequential Paging Decode
INPUT/OUTPUT CONNECTOR	(10 pin IDC Box Header, Mates with AMP #746285-1)

PIN DESCRIPTION

- 1 TX Wideband Modulation Input
- 2 Rx Wideband Demodulated Output
- 3 Channel Select Input
- 4 Coded Squelch Detect Output
- 5 Supply Voltage Input
- 6 TX Key Input (Polarity Selectable)
- 7 Carrier Detect Output (Polarity Selectable)
- 8 TX Modulation Input
- 9 Ground
- 10 RX Audio Output

Local "Radio Test" capability via speaker microphone connectors. (Requires Ritron model RSM-3X Remote Speaker Microphone)

3.5mm DESCRIPTION

TIP: RX Speaker Audio, 1 Watt to 8 W
RING: Programming Data To/From EEPROM
SLEEVE: Ground

2.5mm DESCRIPTION

TIP: TX Key and TX Audio Combined
SLEEVE: Ground