

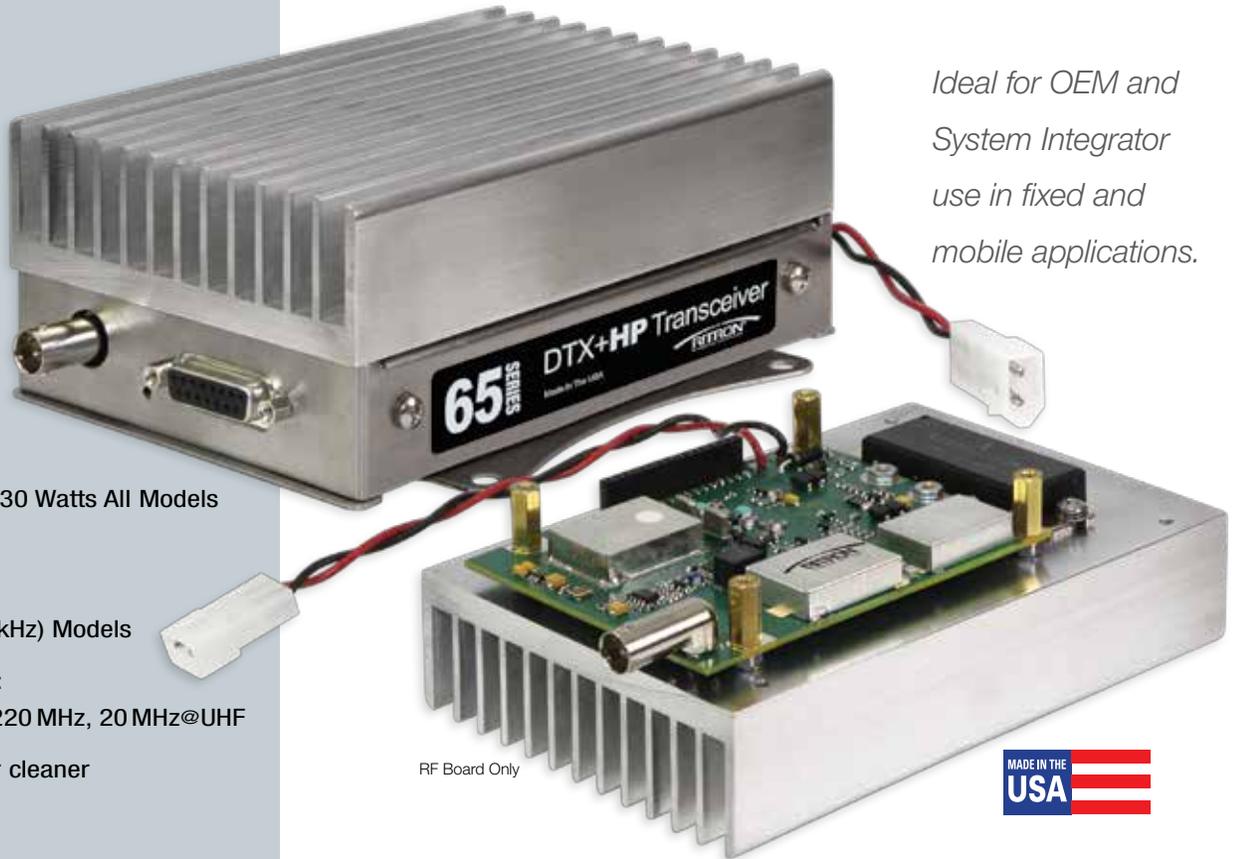


New HP Series

DTX+ HP Transceiver

The Wireless Connection

Ideal for OEM and System Integrator use in fixed and mobile applications.



RF Board Only

FEATURES

- High Power Capability 5-30 Watts All Models
- Wide Band (25KHz)*
- Narrow Band (12.5 kHz)
- Very Narrow Band (6.25 kHz) Models
- Broadband TX/RX Design:
38 MHz@VHF, 28 MHz@220 MHz, 20 MHz@UHF
- DSP audio processing for cleaner data transmission
- Frequency Ranges: **
 - 136 -174 MHz
 - 217-245 MHz
 - 380-400 MHz
 - 400-430 MHz
 - 450-470 MHz
- Frequency Stability Standard @ 1.0 ppm
- Ultra Fast TX/RX Attack Times
- Controlled Envelopesm TX Keying
- Dual Transmit and Receive Audio Paths
- Meets FCC and IC (Canada) Standards ***
- Programmable Output Power
- SMD Component Design
- Custom Frequency Ranges Available
- Designed and Manufactured in the USA

DTX+ High Power Transceiver

The High Power DTX+ HP Series is ideal for any system design where high performance RF specifications, fast TX/RX attack times, and high power or range are a requirement. High specifications permit integration into systems demanding the utmost performance in congested frequency environments.

Direct modulation with low distortion and low group delay result in a low bit-error rate (BER) for enhanced system integrity and reliability. The Swift Locksm synthesizer-loading algorithm reduces unit turn-on-time to less than 10ms for high-speed data throughput rates, and Controlled Envelopesm keying reduces adjacent channel "keyclicks," resulting in spectrum-friendly operation.

Capable of 6.25kHz and 12.5 kHz channel spacing operation, the DTX+ HP Series can be installed in systems where refarming compliant narrow band frequencies have been assigned.

For high performance, reliable and cost-effective wireless data solutions, call Ritron at **800.USA.1.USA** (800-872-1872).

* Wideband (25KHz) model available by special order only and where allowed by appropriate regulatory authorities.

** Contact Ritron with your specific frequency band requirement.

*** Certain models listed have not been approved by the FCC. This device is not, and may not be, offered for sale or lease, or sold or leased until approval by the FCC has been obtained.

**Have a radio modem requirement?
Ask about the DTXM RadioModem.**



AVAILABLE MODELS

DTX+ HP

DTX+ HP RF Board with HEATSINK

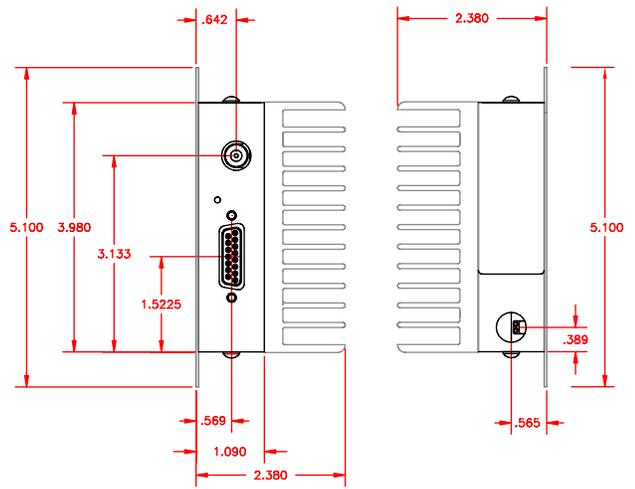
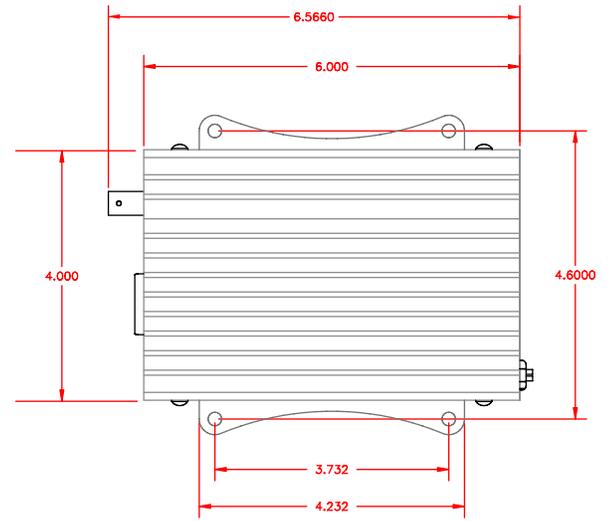
Model	Frequency	Model	Frequency
DTX-165-0	136-174 MHz	DTX-165-0-D	136-174 MHz
DTX-265-0	217-245 MHz	DTX-265-0-D	217-245 MHz
DTX-365-M	380-400 MHz	DTX-365-M-DD	380-400 MHz
DTX-465-G	400-430 MHz	DTX-465-G-D	400-430 MHz
DTX-465-0	450-470 MHz	DTX-465-0-D	450-470 MHz

Other frequency ranges possible. Please contact the Ritron Sales Department for your specific requirements.

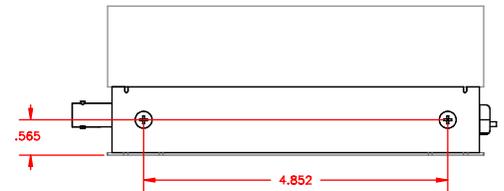
DTX+ HP SPECIFICATIONS

GENERAL	VHF	220 MHz	UHF
FCC Identifier	PENDING	PENDING	PENDING
Industry Canada Identifier	PENDING	PENDING	PENDING
Number of Channels	8	8	8
TX/RX Spacing (w/in frequency range)	38 MHz max.	28 MHz max.	20 MHz max.
Mode of Operation	--- Simplex/Half Duplex ---		
Channel Increment (Synthesizer step size)	2.5 kHz	2.5/3.125 kHz	5/6.25 kHz
Emissions Bandwidth			
Wide Mode*	16kHz	16kHz	16kHz
Narrow Mode	11 kHz	11 kHz	11 kHz
Very Narrow Mode	4 kHz	4 kHz	4 kHz
Frequency Stability (-30° to +60° C)	1.0 ppm	1.0 ppm	1.0 ppm
Frequency Stability (-30° to +65° C)	1.5 ppm	1.5 ppm	1.5 ppm
Supply Voltage (VDC)	11-16	11-16	11-16
RF Input/Output Connector	BNC	BNC	BNC
Data Interface	15 pin sub D	15 pin sub D	15 pin sub D
Operating Temperature	-30° to +65° C	-30° to +65° C	-30° to +65° C
Maximum Dimensions (L x W x H)	6.56" x 5.1" x 2.38"		
Weight	33 oz	33 oz	33 oz
Power Interface	2 pin Molex	2 pin Molex	2 pin Molex
TRANSMITTER	VHF	220 MHz	UHF
Operating Bandwidth	38 MHz	28 MHz	20 MHz
RF Output Power	5-30 watts	5-30 watts	5-30 watts
Duty Cycle @ 25° C			
@30 Watts	75%	75%	75%
@15 Watts	100%	100%	100%
Key-Down Time (minutes)	6 m	6 m	6 m
RF Load Impedance	50 ohms	50 ohms	50 ohms
Transmitter Attack Time:	<10 ms	<10 ms	<10 ms
Spurious and Harmonics:	<-25 dBm	<-25 dBm	<-25 dBm
FM Hum and Noise			
12.5 kHz channel operation	>40 dB	>40 dB	>40 dB
6.25 kHz channel operation	>35 dB	>35 dB	>35 dB
Current Drain@12VDC			
5 watt	<2.5 A	<2.2 A	<2.0 A
15 watt	<4.0 A	<4.0 A	<2.9 A
30 watt	< 6.0A	< 5.8A	<5.8 A
RECEIVER	VHF	220 MHz	UHF
Operating Bandwidth	38 MHz	28 MHz	20 MHz
Sensitivity (12 dB SINAD)	<0.25 uV	<0.25 uV	<0.25 uV
RF Input Impedance	50 ohms	50 ohms	50 ohms
Adjacent Channel Selectivity			
+/- 12.5 kHz	>60 dB	>60 dB	>60 dB
+/- 6.25 kHz	>45 dB	>45 dB	>45dB
Spurious and Image Rejection	>60 dB	>60 dB	>60 dB
Intermodulation Rejection	>67 dB	>67 dB	>67 dB
FM Hum and Noise			
12.5 kHz channel operation	>40 dB	>40 dB	>40 dB
6.25 kHz channel operation	>35 dB	>35 dB	>35 dB
Conducted Spurious	<-57 dBm	<-57 dBm	<-57 dBm
Receive Attack Time	<10 ms	<10 ms	<10 ms
Squelch Attack Time	<5 ms	<5 ms	<5 ms
Receive Current Drain	<120 mA	<140 mA	<210 mA

RF and CONTROL BOARD MODULE



RF BOARD MODULE ONLY



DTX PLUS INPUT/OUTPUT CONNECTORS

PIN #	Name	Description
1	CS0	Channel Select low bit
2	CS1	Channel Select mid bit
3	CS2	Channel Select high bit
4	MIC IN	Microphone Input
5	CSN	High/Low Power or Channel 1/2
6	NC	
7	AUX IN	Auxiliary Input
8	AUX OUT	Auxiliary Output
9	PGN IN/OUT	Programming I/O
10	CTS	Clear to Send
11	RX MON	Monitor
12	AUDIO OUT	Audio PA Output
13	DCD	Carrier Detect
14	PTT RTS	Push-to-Talk
15	GND	Ground

Go Beyond Normal Limits...™



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PIN# DTX+ HP Rev.A

Founded in 1977, Ritron, Inc. specializes in the design and manufacture of commercial and industrial-grade wireless voice and data communication equipment.

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