

Meets ETSI EU RED, AU and NZ Requirements

DTX-446

International Transceiver

- UHF, Analog, 450-490 MHz Operation
- 12.5 kHz Channel Bandwidth
- Ideal For OEM and Other Integrated Applications



Available as RF Board only.



Features/Benefits:

- Meets latest EU RED requirements and Australian/New Zealand requirements including latest receiver performance metrics.
- Tested to EN 300 086 v2.1.2, EN 301 489, and AS/NZS 4295:2015
- Excellent receiver sensitivity and low current drain while meeting very high receiver immunity specifications
- Supports voice or data (w external modem) for 12.5 kHz channel bandwidth operation
- Supports CTCSS and CDCSS sub-audible signaling
- Front-end surface acoustic wave (SAW) filters for no-drift/no adjustment front-end
- High performance gilbert cell mixer for low-current, low-noise, high interference rejection receiver
- Ritron exclusive flex-divider PLL synthesizer allows for a wide loop bandwidth for fast transmit and receive attack times and minimal microphonics
- Audiophile-grade polypropylene capacitors in the PLL synthesizer loop filter for additional reduced microphonics and low noise

Plus These Established DTX Ls Features:

- Low standby current drain especially for an international radio facilitates long batter life in battery-powered applications
- PC programmable via a Windows-based PC Programmer
- High receiver sensitivity
- Single-board design for high reliability
- Designed, Manufactured, Supported by Ritron, Inc.
- Variety of connector/housing options to aid OEM flexibility



Not for Sale in the U.S. or Canada

Reliable and Feature Rich.

RF Transceivers, Radio Modems and Specialized Wireless Communication Equipment for OEM and Integrator Applications.

SPECIFICATIONS (General):		Model: DTX-446
FCC IC:	Not Applicable*	
ISED ID:	Not Applicable*	
EU/CE Parts:	EN 300 086 v 2.1.2 EN 301 489	
Australia/New Zealand Parts:	AS/NZS 4295:2015	
Frequency Range:	450-490 MHz	
Synthesizer Step Size:	6.25 kHz nominal (250 Hz possible most frequencies)	
Channel Spacing:	12.5 kHz	
Frequency Stability	+/- 1 ppm (-40°C to +70°C)	
Sub-audible Signaling:	CTCSS and CDCSS	
Power Supply:	9-17 VDC	
Dimensions and Weight:	Board-only: 12 cm x 7.1 cm x 16 cm @ 59.4 gm In Enclosure: 14.5 cm x 6.6 cm x 3.5 cm @ 204 gm	
Antenna Connector:	BNC (other options available-contact factory)	
RECEIVER (measured per EN 300 086):		
Sensitivity:		
12 dB SINAD w de-emphasis	0.25 uV Pd/0.50 uV EMF	
12 dB SINAD flat	1.0 uV Pd/2.0 uV EMF	
20 dB SINAD w psoph.	0.40 uV Pd/0.8 uV EMF	
Adjacent Chanel Rejection:	60 dB	
Spurious Response:	70 dB	
Image Rejection:	70 dB	
Intermodulation Rejection:	65 dB (70 dB per TIA 603)	
FM Hum and Noise:	40 dB	
Conducted Spurious Emissions:	-57 dBm	
Receiver Attack Time:	10 ms	
Noise Squelch Attack Time:	15 ms	
RSSI Squelch Attack Time:	5 ms	
Noise Squelch Sensitivity:	-121 dBm Pd nominal (adjustable)	
RSSI Squelch Sensitivity:	-106 dBm Pd nominal (adjustable)	
AUX Out Frequency Response:	12-2500Hz (+1/-3 dB)	
AUX Out Adjustment Range:	0-2 Vpp	
Audio Speaker Frequency Range:	400-2500 de-emphasized	
Audio Speaker Level:	700 mV into 8 ohms	
Current Drain:	50 mA	
TRANSMITTER (measured per EN 300 086):		
Emissions Designator:	10K0F3E	
RF Output Power:	5 watts @ 12.5 VDC	
Transmit Current Drain:	1.3 A at 5 watts	
Transmit Duty Cycle:		
Board-Only	100% w external heat sink @ 25°C	
Enclosed	50% @ 25°C	
Maximum Modulation Deviation:	+/-2.5 kHz	
Adjacent Channel Power:	60 dB	
Transmit Attack time:	10 ms	
FM Hum and Noise:	40 dB	
Audio Distortion:	5% (modulation below limiting)	
Spurious and Harmonics:	-36 dBm	
AUX In Frequency Response:	8-2500 Hz (+1/-3 dB)	
AUX In Level Adjustment Range:	0.1 to 5 Vpp	
Microphone Frequency Response:	300-2500 pre-emphasized	
Microphone Level:	25 mV for 60% rated deviation	

*This product is NOT approved for sale in the U.S. or Canada, use the DTX-445 instead.



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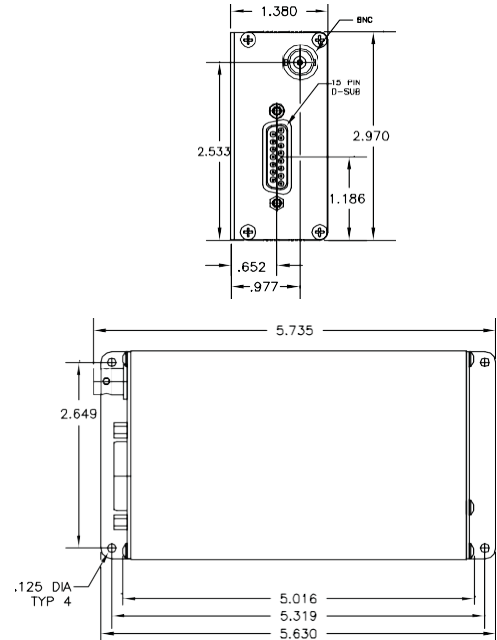
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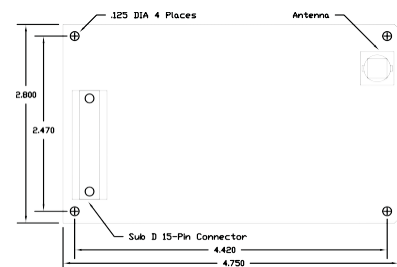
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SINGLE BOARD TRANSCEIVER WITH HOUSING & MOUNTING FLANGES



SINGLE BOARD TRANSCEIVER (Board Only)



SUB D 15-PIN CONNECTOR

The DTX-446 is equipped with a 15-pin sub D connector with the following functions:

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	H/L PWR	High/Low Power
6	SUPPLY	Power Supply Input
7	AUX IN	Auxiliary Input
8	AUX OUT	Auxiliary Output
9	PGN IN/OUT	Programming I/O
10	N/A	Not Used
11	RX MON	Monitor
12	Audio Out	Audio PA Output
13	DCD	Carrier Detect
14	PTT	Push-to-Talk
15	GND	Ground

