

The TRI5758 is an Outdoor RF Transceiver for use in unlicensed broadband wireless systems.

The TRI5758 combines a low noise downconverter, high power upconverter, antenna and high rejection duplexer to offer a fully integrated solution for

5.7 GHz BWIN™ BASED on DOCSIS™ subscriber terminals.

The TRI5758 Integrated Subscriber Transceiver serves to frequency translate and amplify the upstream and downstream signals to

the appropriate intermediate frequencies for use by the indoor DOCSIS modem.

The TRI5758 with integral antenna is situated outdoors and connected to a cable modem indoors by a low cost 75 ohm cable (i.e. RG-59, RG-6 or similar).



A single RF F-connector on the wetherproofed enclosure provides the interface to the indoor modem for rapid installation.

Product Features:

- +28 dBm EIRP
- Microprocessor controlled gain compensation over full temperature band
- Automatic transmit RF mute (transmits only when an IF signal is present)
- Integrated planar antenna
- Audible installation alignment beeper to facilitate installation
- Fully weatherized unit suited for outdoor mounting
- Tx & Rx have excellent phase noise and frequency stability



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SPECIFICATIONS — WAVECOM TRI5758

Broadband Wireless Transceiver

TRANSMIT

IF Input Frequency	18 to 42 MHz
RF Output Frequency	5727 - 5751 MHz (Option T5727-5751R5775-5799) 5751 - 5775 MHz (Option T5751-5775R5799-5823)
Gain (Integrated)	26 dB +/- 2 dB
Gain Flatness (Frequency Response)	+/- 1 dB full band +/- 0.5 dB over any 6 MHz band
Gain Stability over Temperature	+/- 2.0 dB
Linear Output Power	+5 dBm into antenna (16 QAM, QPSK)
Spurious (at transmit port)	-40 dBm 9 kHz to 21.4 GHz
Phase Noise	< -85 dBc/Hz @ 10 KHz typical
Spectral Inversion	No spectral inversion
Return Loss (IF)	10 dB in Transmit and Receive bands
IF Level for RF Activation	+ 5 dBmV
RF Activation/Mute Response Time	<2 microseconds

RECEIVE

RF Input Frequency	5775 - 5799 MHz (Option T5727-5751R5775-5799) 5799 - 5823 MHz (Option T5751-5775R5799-5823)
IF Output Frequency	516 -540 MHz
Gain (Integrated)	53 dB +/- 2 dB
Gain Flatness (Frequency Response)	+/- 1.5 dB full band +/- 0.5 dB any 6 MHz band
Gain Stability over Temperature	+/- 2.0 dB
Noise Figure	6.0 dB typical, 7dB max
Image Rejection	90 dB minimum
Discrete Spurious (at IF port)	-80 dBm between 510 and 546 MHz -50 dBm from 5 MHz to 510 MHz and from 546 MHz to 860 MHz
Phase Noise (IF)	<-85 dBc/Hz @ 10 kHz typical
Spectral Inversion	No spectral inversion

GENERAL

Integrated Flat Panel Antenna	
Gain	23 dBi
Beamwidth	9.0 degrees
Polarity	Vertical or Horizontal
Cross Polarization Isolation	20 dB
Front/Back Ratio	30 dB
Frequency Setting & Stability	+/- 15 kHz (-30 to +40°C)
Frequency Stability Over Time	< +/- 25 kHz over 10 years
IF Connector	F female, 75 ohms
DC Supply	18 to 24 VDC, 12W max.
Operating Temperature	-30°C to +40°C (full specifications) -45°C to +45°C (operational)
Size	30.5 x 30.5 x 7.5 cm (12" x 12" x 3")
Mounting	Pole mount 1" to 2.5" dia. pole or wall mount with 90 deg pol, az and el adjustment
Weight	2.7kg max.



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The DOCSISTM acronym belongs to CableLabs®

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