

The VCom **BTR5857** is a low cost 5.7 to 5.8 GHz Base Station Outdoor Unit (ODU) for use with VCom TRI5758 in broadband fixed wireless systems.

The BTR5857 cost and performance makes it ideal for both point-to-point and point-to-multipoint systems.

The BTR5857 combines a low noise downconverter, high power upconverter and high rejection duplexer to offer a quick and easy to install base station ODU for BWIN™ BASED ON DOCSIS™.



## Product Features:

- Up to +15 dBm output power with 64QAM; +20 dBm with QPSK
- Digital temperature compensation - guarantees specifications over full operating temperature band
- High reliability, state-of-the-art design using microstrip, MMIC and surface mount technology
- Can be used with an external antenna or an integrated antenna for point-to-point systems
- Automatic transmit RF mute (transmits only when an IF signal is present)



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# SPECIFICATIONS — VCOM BTR5857

## Base Station Transceiver

### TRANSMIT SPECIFICATIONS

IF Input Frequency	516-540 MHz
Bandwidth	one or more RF carriers (4 x 6 MHz)
RF Output Frequency Range	5775-5799 MHz (Low Band Option) 5799-5823 MHz (High Band Option)
Frequency Response (any 6 MHz band)	± 0.3 dB
Rated Output Power at Antenna Port	+15 dBm (64QAM); +20 dBm (QPSK)
Spectral Mask	Compliant with ETSI EN 301 021 v1.5.1, section 5.3.3, system type D
Phase Noise	<-85 dBc/Hz @ 10 KHz
Gain	30 dB (± 1 dB over temp)
IF Level for RF Activation	18 ± 2 dBmV

### RECEIVE

RF Input Frequency Range	5727-5751 MHz (Low Band Option) 5751-5775 MHz (High Band Option)
Frequency Response (any 6 MHz band)	±0.3 dB
IF Output Frequency Range	18-42 MHz
Noise Figure at Antenna Port	<6 dB including duplexer loss
Gain	38 dB (± 2 dB over temp)
Phase Noise	<-85 dBc/Hz @ 10 KHz

### GENERAL

Frequency Setting and Stability over Temperature	± 15 kHz
Frequency Setting and Stability over 10 years	± 25 kHz
IF Connector	F female, 75 ohms
RF Connector	N female, 50 ohms
Return Loss	10 dB
Power Requirement	12 to 28 VDC (+21 V to +28 V nominal)
Power Consumption	12W maximum
Operating Temperature Range	ETS 300 019 Class 4.1 (-30 to +40°C ambient) full specifications ETS 300 019 Class 4.1E (-45 to +45°C ambient) operational
Antenna Beamwidth	90°, Omnidirectional available
Antenna Compliance	ETSI EN 302 085
Spurious Emissions	ETSI EN 301 390, FCC Part 15, Industry Canada RSS-210
EMC Compliance	ETSI EN 300 385
Mounting	Standard - Pole (1" to 1.75" (25mm to 44mm) diameter) with polarization, azimuth, elevation adjustment. Optional - wall mount
Dimensions	12" x 12" x 2.5" (305 mm x 305 mm x 64 mm) maximum
Weight	5.5 lbs. (2.5 kg)

### SYSTEM CONFIGURATIONS

BTR5857-T5775_5799-R5727_5751	Outdoor 5.7 GHz Base Station Transceiver Low Band (Transmit: 5775-5799 MHz, Receive: 5727-5751 MHz)
BTR5857-T5799_5823-R5751_5775	Outdoor 5.7 GHz Base Station Transceiver High Band (Transmit: 5799-5823 MHz, Receive: 5751-5775 MHz)



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