

# THE WAVECOM TR2126SE

MMDS/MDS TRANSCEIVER

The WaveCom **TR2126SE** is an MMDS/MDS Transceiver for use in wireless systems. The TR2126SE integrates an LNA, downconverter, upconverter, power amplifier, RF and IF diplexers to provide a one-box solution for two-way Wireless RF communications. The TR2126SE and antenna are situated outdoors and connected to a cable modem indoors by



standard RG-59 cable.

A single RF connector on the weatherproofed enclosure provides the interface to the transmit/receive antenna for rapid setup. The Transceiver is configured to work with standard cable modem frequency plans and levels, permitting direct connection. The Transceiver also includes an RF mute function to reduce power consumption and broadband noise emissions.

## Features:

- +27 dBm output for high reverse channel system gain
- Microprocessor controlled gain compensation over temperature
- Low Phase Noise
- Automatic transmit RF mute (transmits only when an IF signal is present)
- Fully weatherized unit suitable for outdoor mounting
- Straightforward installation using optional built-in signal strength indicator



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# SPECIFICATIONS — WAVECom TR2126SE

## MMDS/MDS Transceiver

### UPCONVERTER SPECIFICATIONS

IF Input Frequency	14.375 to 26.375 MHz
RF Output Frequency	2150 to 2162 MHz
Output 1dB Compression Point	+27 dBm
Gain	20 ± 2 dB across full temperature range
Gain Flatness	± 1 dB
In-band Spurious	-60 dBc
Out-of-band Spurious	-60 dBc
Phase Noise	-93 dBc/Hz @ 10 kHz -115 dBc/Hz @ 100 kHz
IF Level for RF Activation	+3 dBmV

### DOWNCONVERTER SPECIFICATIONS

RF Input Frequency	2500 to 2686 MHz
IF Output Frequency	222 to 408 MHz
Nominal Gain	32 ± 2 dB
Gain Flatness	± 1.5 dB full band; ± 0.3 dB/ 6 MHz
Noise Figure	≤5.0 dB @ 20C, typically 4.0 dB
Output 3rd Order Intercept	+22 dBm at nominal gain
WCS Rejection	70 dB
Combined Image and PCS Rejection	85 dB
Spurious	-65 dBm max.
Phase Noise	-93 dBc/Hz @ 10 kHz -115 dBc/Hz @ 100 kHz

### GENERAL

Frequency Setting & Stability	± 7.5 kHz (-40 to +60°C)
Frequency Stability Over Time	< ± 10 kHz over 10 years
RF Connector	N female, 50 ohms
IF Connector	F female, 75 ohms
Input/Output VSWR	2:1
DC Supply	12 to 24 V, 12 Watts max.
Operating Temperature	-40 to +60°C (-40 to +140°F)
Size	6" x 8" x 0.9" (15.24 x 20.32 x 2.29 cm)
Mounting	Pole (1" to 1.75" (25mm to 44mm) diameter)



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