

The WaveCom **TR2126** is an MMDS/MDS Transceiver for use in wireless systems. The TR2126 integrates an LNA, downconverter, upconverter, power amplifier, RF and IF diplexers to provide a one-box solution for two-way Wireless RF communications. The TR2126 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:

- +30 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



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SPECIFICATIONS — WAVECOM TR2126

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	+30 dBm
Gain	30 $\pm$ 2 dB across full temperature range (field adjustable to 20 $\pm$ 2 dB)
Gain Flatness	$\pm$ 0.75 dB full band
In-band Spurious	-60 dBc
Out-of-band Spurious	-60 dBc
Phase Noise	-95 dBc/Hz @ 10 kHz -110 dBc/Hz @ 100 kHz
IF Level for RF Activation	0 dBmV

DOWNCONVERTER SPECIFICATIONS

RF Input Frequency	2500 to 2686 MHz
IF Output Frequency	222 to 408 MHz
Nominal Gain	32 $\pm$ 2 dB
Gain Flatness	$\pm$ 2 dB full band; $\pm$ 0.3 dB/ 6 MHz
Noise Figure	3.5 dB typically, 4.5 dB maximum
Output 3rd Order Intercept	+24 dBm at nominal gain
Radar Rejection	26 dB (15 dB pre-LNA)
WCS Rejection	70 dB (35 dB pre-LNA)
PCS Rejection	95 dB (50 dB pre-LNA)
Image Rejection	90 dB
Spurious	-70 dBm
Phase Noise	-95 dBc/Hz @ 10 kHz -110 dBc/Hz @ 100 kHz

GENERAL

Frequency Setting & Stability	$\pm$ 5 kHz (-40 to +60°C)
Frequency Stability Over Time	< $\pm$ 10 kHz over 10 years
RF Connector	N female, 50 ohms
IF Connector	F female, 75 ohms
Input/Output VSWR	2:1
DC Supply	18 to 24 V, 12 Watts max.
Operating Temperature	-40 to +60°C (-40 to +140°F)
Size	6" x 7" x 1" (15.24 x 17.78 x 2.54 cm)
Mounting	Pole or wall mount



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