



Wireless DOCSIS Transceiver TRX2.5-200C

- Provides Digital TV and Wireless Internet Service simultaneously
- Integrated Transceiver Design
- Single Antenna Design
- 50 Km Range
- Low Phase Noise and High Frequency Stability
- Low DC Power Consumption
- 100% Weather Proof Housing

PRODUCT APPLICATION:

The Wireless DOCSIS Transceiver is an integrated design using a single antenna to provide reception of digital MMDS TV and also Wireless DOCSIS Internet service simultaneously.

This ultra-high performance transceiver is designed to interface with any DVB-C digital MMDS Set Top Box and any DOCSIS compatible standard cable modem at the subscriber site.

The transceiver delivers downstream VHF digital carriers that are delivered to the Set Top Box and also DOCSIS downstream carriers to the modem. It accepts upstream IF signals from the modem, transmitting these signals back to the base station.

The transceiver operates in several different downstream and upstream bands within the MMDS 2.5 to 2.7 GHz band. Other frequencies are available per customer's requirements.

The single antenna design provides cost-effective solution for both operators and subscribers. The transceiver can be provided with connectors or with an integrated dipole.

The transceiver can feed a single household or several households simultaneously, when installed on the roof and connected to a cable distribution network. It can also be used to provide Internet connectivity to one or more WIFI nodes.

Product Specification¹

CABLE AML

Transceiver

Receive Downconverter	
RF Input:	2500 - 2602 MHz
IF Output:	222 - 324 MHz
Gain:	20 ± 2 dB typ.; 20 ± 4 dB (-30 °C to +60 °C)
Gain Flatness:	± 2 dB (-30 °C to +60 °C)
Noise Figure:	7.5 dB typ.; 8.5 dB Max
Output 3rd Order Intercept:	24 dBm typ.; 20 dBm Min (-30 °C to +60 °C)
Image Rejection (PCS Band inclusive):	90 dB Min.
WCS Rejection:	70 dB Min.
Out-of-Band Rejection:	40 dB at 2450 MHz ; 40 dB at 2750 MHz
IF Rejection:	-85 dBc Max
In-Band Spurious:	-80 dBm Max.
Transmit Upconverter	
IF Input :	23 – 65 MHz, non-inverted
RF Output:	2644 - 2686 MHz
Gain:	24 ±3 dB typ.; 24 ±5 dB (-30 °C to +60 °C)
Gain Flatness:	±1.5 dB (-30 °C to +60 °C)
Output 1-dB Compression Point:	24 dBm typ.; 21 dBm Min (-30°C to +60°C)
Output Transmit Noise:	-118 dBm/Hz typ; -114 dBm/Hz Max.
Output Spurious/Harmonics(+22 dBm Tx Out):	-60 dBc (Both in-band and out-of-band)
Output Power Blanking Threshold:	-50 dBm Max. @ IF Input
TX Switching Latency:	≤ 1.2 micro-seconds
General Specification	
LO Frequency:	2278 MHz
LO Stability:	±10 kHz (-30°C to +60°C)
LO Leakage (both IF and RF output ports):	-50 dBm Max.
Phase Noise (both Tx and Rx):	< -65 dBc/Hz @ 100 Hz ; < -85 dBc/Hz @ 1 kHz < -93 dBc/Hz @ 10 kHz ; < -98 dBc/Hz @ 100 kHz
Input /Output Return Loss:	7.36 dB
DC Consumption (@+15~+24Vdc):	9.0W
IF Connector (Rx Out/Tx In):	F-type, female, 75 Ohms
RF Connector (Rx In/Tx Out):	N-type, female, 50 Ohms
Operating Temperature:	-30°C to +60°C
Physical Dimension:	150mm x 150mm x 40mm; 0.75kg in weight.
Weather Proof Housing:	100 % Water proof
Accessories Options	
Antenna:	Several Antenna interfaces available
Power Supply:	110/220V Adapter & Inserter

¹ Specifications subject to change without prior notice.

Note : Typical value @ 25 °C, unless otherwise specified. Technical specifications are subject to change without prior notice.