

Ultraflex® System

Broadband Wireless Access – In-Band Return

The Ultraflex® System provides a two-way wireless path for last-mile wireless local loop access. The system consists of a customer premises antenna, transmit/receive transverter, power supply, and multiple subscriber mounting options. The system is available in a wide variety of frequency schemes.

This bi-directional system is compatible with video, voice, and data communications. It can function as a multi-channel digital receive unit and, at the same time, transmit and receive data to and from multiple customer premises modems and terminals. The system can provide more than 4 watts EIRP and features a highly linear power amplifier, brickwall filtering and path isolation, analog or switch mode power supplies, and easy installation. TCXO and GPS reference options are available.

Features and Options

- **Highly discriminative flat planar array technology**
- **Up to 4 watts EIRP**
- **Single CPE antenna, RF interface, IF interface**
- **Low noise levels**
- **Downstream signal attenuation**
- **Low cost**

Ordering Information

Tx Frequency*	LO Ref.	Type Number	Style**
2644-2650	GPS	TR-2272-0015	Integrated
2644-2650	TXCO	TR-2272-0013	Integrated
2650-2668	GPS	TR-2272-0011	Integrated
2650-2668	TXCO	TR-2272-0009	Integrated
2668-2686	GPS	TR-2272-0007	Integrated
2668-2686	TCXO	TR-2272-0005	Integrated

* Contact factory for lower band and MDS Return.

** Stand-alone options available

Specifications

Transverter Specifications: G&H Return

Transmit Input Frequency	24-42 MHz (3 configurations)
Transmit Output Frequency	2644-2686 MHz
P1 dB	+23 dBm
Upstream Gain	20 ± 2 dB
Receive Input Frequency	2500-2590 Mhz
Receive Output Frequency	228-318 MHz
Gain (dBi)	32 ± 2 dB
Noise Figure	≤5 dB



TR-2272

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Receive Filter Rejection	Pre-LNA RF	RF & IF Combined
1930-1990 MHz	>95 dB	>95 dB
2705 MHz	>20 dB	>25 dB
2735 MHz	>30 dB	>30 dB
2750 MHz & Above	>40 dB	>50 dB
	TCXO option	GPS remote reference
Local Oscillator Frequency	2272 MHz	2272 MHz
Set Point Accuracy	± 2 KHz	± 256 Hz
Frequency Stability	± 10 KHz Phase Coherent	± 500 Hz Phase Coherent
Phase Noise @ 100 Hz	65 dBc/Hz	65 dBc/Hz
Phase Noise @ 10 KHz	90 dBc/Hz	90 dBc/Hz
Phase Noise @ 10 MHz	120 dBc/Hz	120 dBc/Hz
RF Interface - Single	50 Ohm type "N" female	
IF Interface - Single	75 Ohm type "F" female	
Temperature Range	-40°C to +70°C	

Power Supply / Inserter

Level Adjust	228-318 MHz 0-20 dB
Power Up Coax	18-24 Vdc
Current	330 mA TCXO version
	440 mA GPS version
Supply Type	Switching (analog optional)
AC Supply range	90-240 VAC
Certification	UL and others

Antenna

Forward Gain	14.0 dB ± .05 dB
Polarization Isolation	>25 dB
Front to Back Ratio	>22 dB
Maximum Side Lobe	30 dB
3 dB Beamwidth	<29°



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