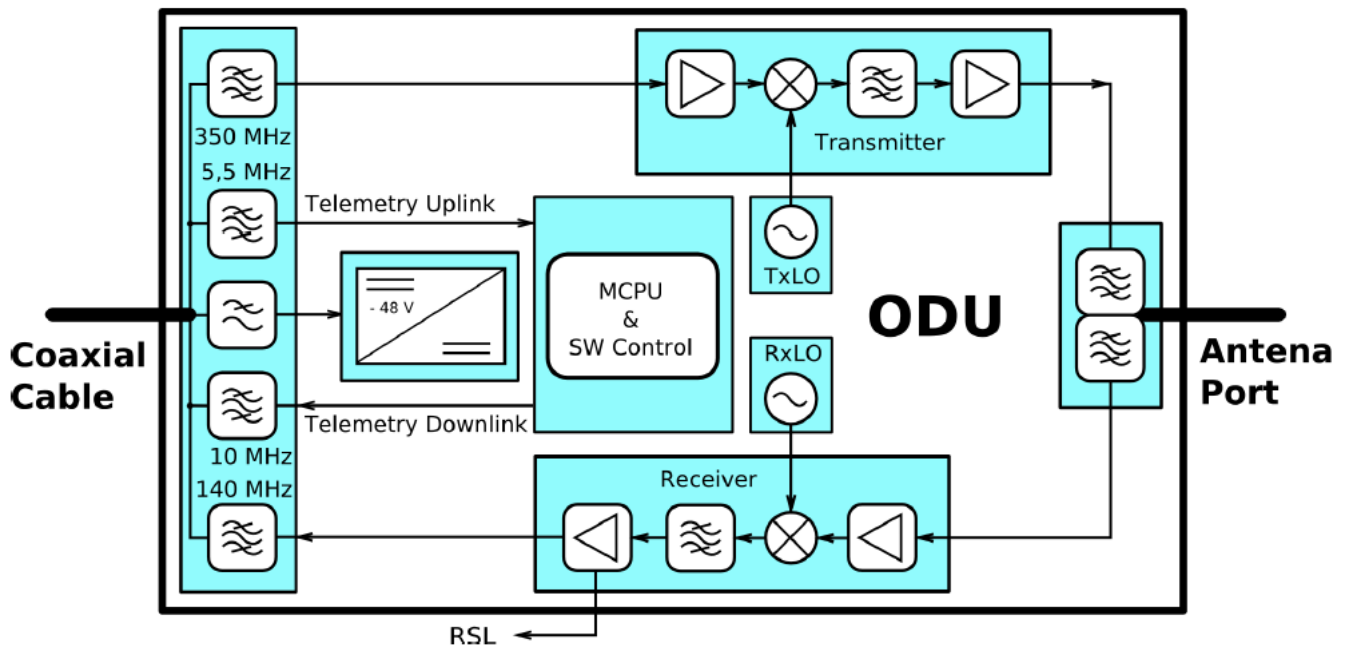


Operational Description

Date: 2011/3/10

Microwave link **GX800-XX-LNK** of point-to-point type (in the basic configuration 1+0) consists of two Outdoor radio Units (ODU). ODU performs the up-conversion from IF frequency from IDU (350MHz) to the desired transmission band, and vice versa, performs the down-conversion from received frequency band to IF frequency (140MHz) for the receiving part of the IDU. Power supply for ODU is delivered through the coaxial cable (used for the connection between IDU - ODU) as well as software access to ODU, its management and configuration is possible only from the Indoor Unit. The management of ODU is integrated directly in the command set of the Indoor Unit and it is an integral part of the IDU software. For an easy primary setup of the optimal received signal level the ODU is fitted with BNC connector where the measured DC voltage [mV] is directly proportional to the level of Received Signal Strength (RSSI). Outdoor unit is an integral part of the antenna system. ODU is mounted behind the parabolic antenna. The modulation scheme is adjustable from QPSK to 256QAM, the output power is in the range between **0 to 21 dBm** depending on the selected frequency band and the type of modulation scheme.



◆ **EUT information**

Items	Description
Modulation	QPSK, 16QAM, 32QAM, 64QAM, 128QAM, 256QAM
Bandwidth	10 MHz , 20 MHz , 30 MHz , 40 MHz , 50 MHz ,
Data Rate Range(Mbps)	10~310 Mbps
Transmitter Frequency	21472 - 21786 MHz , 22704 - 23018 MHz
Receiver Frequency	22704 - 23018 MHz, 21472 - 21786 MHz
Channel Band Width (99%)	48.4 MHz
Max output Power	20.41 dBm
Max Antenna Gaun	45.00 dBi
Max EIRP power	65.41 dBm

◆ **The channel plan**

The Channel Plan(s)	
Channel Plan 1:	21200 - 23600 MHz Band
Authorized Bandwidth 1:	10 MHz
Authorized Bandwidth 2:	50 MHz
TX/RX Space:	1232 MHz
NOTE: EUT complied with FCC 101.101	
NOTE: We choose max / min Bandwidth to test	

◆ **Antenna Information**

Antenna Information	
Integral antenna gain:	N/A dBi
	<input type="checkbox"/> Temporary RF connector provided
	<input checked="" type="checkbox"/> No temporary RF connector provided
<input checked="" type="checkbox"/> External antenna (parabolic antennas)	
	<input checked="" type="checkbox"/> Diameter 30cm gain=34.4 dBi
	<input checked="" type="checkbox"/> Diameter 60cm gain=39.8 dBi
	<input type="checkbox"/> Diameter 90cm
	<input checked="" type="checkbox"/> Diameter 120cm gain=45 dBi
	<input type="checkbox"/> Diameter 180cm
NOTE: EUT antenna complied with FCC 101.115, antenna requirements.	

◆ **Transmit Power**

Highest Power Levels (without antenna)						
Applicable power levels			<input checked="" type="checkbox"/> Conducted; <input type="checkbox"/> EIRP			
Authorized Bandwidth:			1 (10 MHz)			
Operating Mode & Frequency (MHz)		Highest setting (P_{high}): (dBm)				
		Power Setting	Modulation	Data Rate (Mb/s)	Power	EIRP Power Limit
Mode 1	21472	20	QPSK	14.96	20.40	85
	21786	20	QPSK	14.96	20.41	85
	23018	21	QPSK	14.96	20.25	85

Highest Power Levels (without antenna)Applicable power levels: Conducted EIRP

Authorized Bandwidth: 2 (50 MHz)

Operating Mode & Frequency (MHz)		Highest setting (P_{high}): (dBm)				
		Power Setting	Modulation	Data Rate (Mb/s)	Power	EIRP Power Limit
Mode 2	21472	19	QPSK	76.70	18.31	85
	21786	18	QPSK	76.70	18.32	85
	23018	21	QPSK	76.70	20.25	85