

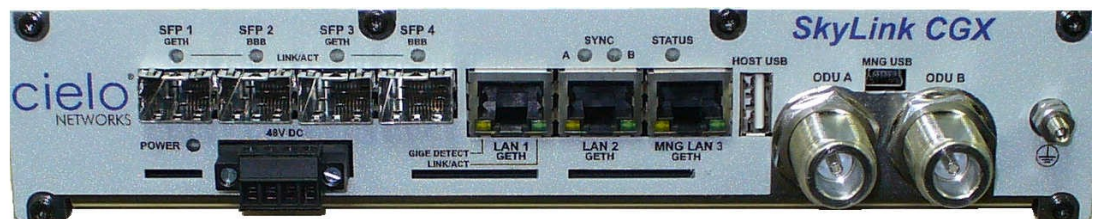
SkyLink CGX

Ultra Low Latency PTP Radio System

Delivering Scalable Bandwidth Licensed Microwave Solutions

Features

- Licensed band PTP digital microwave system for all FCC/NTIA/ETSI bands at 6/7/8/11/13/15/18/23/26/39 GHz
- Payload: 4xSFP and 3x1000BaseT for low latency operation
- Scalable GigE IP bandwidth - 24 to 351 Mbps Ethernet No FEC Mode Operation
- BBB Mode Operation Support for lowest latency operation
- Scalable modulation - QPSK/16QAM/32QAM/64QAM/128QAM/256QAM
- End Unit Single, End Unit Dual, and Repeater Mode supported
- Ultra Low Latency Operational Modes
- Advanced forward error correction techniques for improved link performance
- Common compatible IDU for all ODU RF bands
- Compact IDU size of one RU height & one half 19-inch rack width
- SNMP remote management
- User friendly Web GUI management solution



Cielo Networks, Inc.
2211 East Continental Blvd., Suite 150
Southlake, TX 76092
Tel: 1-817-488-9473
www.cielonetworks.com

cielo®
NETWORKS

Technical Specifications

SkyLink CGX

No FEC Specifications

General Information	6 GHz	7 GHz	8 GHz	11 GHz	13 GHz	15 GHz	18 GHz	23 GHz	26 GHz	38 GHz
Frequency Range (GHz)	5.9 - 7.1	7.1 - 7.9	7.9 - 8.5	10.7 - 11.7	12.7 - 13.2	14.4 - 15.4	17.7 - 19.7	21.2-23.6	24.5-26.5	37.0-40.0 GHz
T-R Spacing (MHz)	240/252.04/340	154/160/161/ 168/196/245/ 300	119/126 /151.614/208/ 266/310/311.32/ 360	490/530	266	315/322/420/ 475/490/ 640/644/728	1008/1010 1092.5/1120/ 1560	1008/1200/ 1232	800/1008	700/1260
RF Channel Spacing (MHz)	14/28/30/40/56	14/28/40/56	14/28/40/56	14/28/30/40/56	14/28/56	14/28/56	14/28/30/40/50/56	14/28/30/50/56	14/28/40/56	14/28/30/50/56
Frequency Accuracy	7 PPM									

Radio Information	6 GHz					7/8 GHz					11 GHz				
Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	QPSK	16QAM	32QAM	64QAM	128QAM	QPSK	16QAM	32QAM	64QAM	128QAM
Transmit Power	30 dBm	28 dBm	28 dBm	24 dBm	24 dBm	30 dBm	28 dBm	28 dBm	24 dBm	24 dBm	28 dBm	26 dBm	26 dBm	21 dBm	21 dBm
Receiver Sensitivity (BER 10e-6)	-73 dBm	-70 dBm	-68 dBm	-63 dBm	-60 dBm	-73 dBm	-70 dBm	-68 dBm	-63 dBm	-60 dBm	-73 dBm	-70 dBm	-67 dBm	-64 dBm	-62 dBm
Receiver Overload (BER 10e-6)	-20 dBm	-20 dBm	-20 dBm	-23 dBm	-23 dBm	-20 dBm	-20 dBm	-20 dBm	-23 dBm	-23 dBm	-20 dBm	-20 dBm	-20 dBm	-23 dBm	-23 dBm

Radio Information	13/15 GHz					18 GHz					23 GHz				
Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	QPSK	16QAM	32QAM	64QAM	128QAM	QPSK	16QAM	32QAM	64QAM	128QAM
Transmit Power	26 dBm	24 dBm	24 dBm	20 dBm	20 dBm	25 dBm	22 dBm	22 dBm	17 dBm	17 dBm	25 dBm	22 dBm	22 dBm	17 dBm	17 dBm
Receiver Sensitivity (BER 10e-6)	-76 dBm	-71 dBm	-67 dBm	-64 dBm	-62 dBm	-80 dBm	-73 dBm	-66 dBm	-63 dBm	-61 dBm	-79 dBm	-73 dBm	-67 dBm	-64 dBm	-62 dBm
Receiver Overload (BER 10e-6)	-20 dBm	-20 dBm	-20 dBm	-23 dBm	-23 dBm	-20 dBm	-20 dBm	-20 dBm	-23 dBm	-23 dBm	-20 dBm	-20 dBm	-20 dBm	-23 dBm	-23 dBm

Radio Information	26 GHz					38 GHz				
Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	QPSK	16QAM	32QAM	64QAM	128QAM
Transmit Power	25 dBm	22 dBm	22 dBm	17 dBm	17 dBm	21 dBm	18 dBm	18 dBm	14 dBm	14 dBm
Receiver Sensitivity (BER 10e-6)	-77 dBm	-73 dBm	-67 dBm	-64 dBm	-62 dBm	-74 dBm	-68 dBm	-64 dBm	-62 dBm	-59 dBm
Receiver Overload (BER 10e-6)	-20 dBm	-20 dBm	-20 dBm	-23 dBm	-23 dBm	-20 dBm	-20 dBm	-20 dBm	-23 dBm	-23 dBm

RF Channel Size	Capacity Bandwidth - No FEC Modes					
	Modulation	QPSK	16QAM	32QAM	64QAM	128QAM
14 MHz		24 Mbps	49 Mbps	61 Mbps	70 Mbps	85 Mbps
20 MHz		35 Mbps	70 Mbps	88 Mbps	105 Mbps	123 Mbps
28 MHz		49 Mbps	99 Mbps	124 Mbps	149 Mbps	174 Mbps
30 MHz		52 Mbps	105 Mbps	132 Mbps	158 Mbps	184 Mbps
40 MHz		70 Mbps	140 Mbps	176 Mbps	211 Mbps	246 Mbps
50 MHz		87 Mbps	174 Mbps	218 Mbps	261 Mbps	305 Mbps
56 MHz		100 Mbps	200 Mbps	250 Mbps	300 Mbps	351 Mbps

Payload

Ethernet/BBB Mode: 24 to 351 Mbps

Physical Interfaces

4xSFP Slot (1Gbps/2.5Gbps)
2xRJ-45 10/100/1000Base-TX
1xRJ-45 10/100/1000Base-TX (NMS or User)

Modem

IDU: 2 x N - Female
ODU: N - Female
Frequency: TX: 350 MHz / RX: 140 MHz

Power

Input Voltage (-48VDC): -36 to -72 VDC
Consumption: 30W (IDU), 55W (per ODU)

Management

Remote Access

SNMP V2, V3
Web-Based GUI (HTTP/HTTPS)
Telnet - Command Line Interface

Local Access

Serial: Command Line Interface
Interface: USB

Topology

Out-of-Band Management with embedded switch

Environmental

Indoor Unit

Operating Temperature: -5° to +45°C
Relative Humidity: 0 to 95%, non-condensing

Outdoor Unit

Operating Temperature: -33° to +55°C
Relative Humidity: 0 to 100%

Mechanical

Indoor Unit

Size: 8.5W x 1.7H x 9.8D inches (1RU)
Weight: 4.9 pounds

Outdoor Unit

Size: 10 diameter x 3.6 deep inches
Weight: 8.6 pounds