

SkyLink-CG2X

Compact High-Capacity Gigabit Ethernet PTP Radio

Delivering High Bandwidth Licensed Microwave Solutions

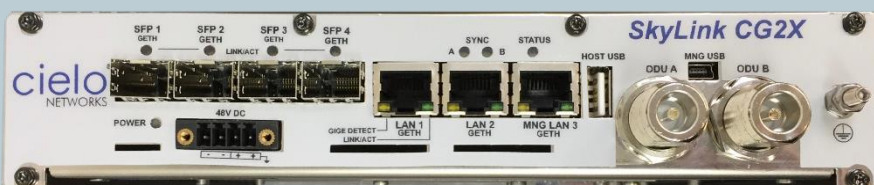
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Features

- High-capacity digital microwave system – greater than 1000 Mbps
- Licensed band PTP digital microwave system for all FCC/NTIA/ETSI bands – 6/7/8/11/13/15/18/23/26/32/39 GHz
- Scalable GigE IP bandwidth – up to 630 Mbps Ethernet for 1+0 and 1260 Mbps for 2+0
- Payload: six GigE user ports and one GigE NMS port with integrated Ethernet switch
- Scalable modulation – QPSK, 16, 32, 64, 128, 256, 512, and 1024QAM
- Dynamic hitless adaptive modulation and adaptive forward error correction techniques for improved link performance
- AES 128-bit / 256-bit encryption
- 1+1 hot-standby and 2+0 support with XPIC in a single CG2X unit
- Split 1+1/2+2 HSB protection with two CG2X units
- Common compatible IDU for all ODU RF bands
- User friendly web GUI solution
- SNMP remote management
- 2 x STM1
- E1/T1 support with external module
- 1588 PTP / Sync-E

Applications

- Fixed wireless access and fiber network extension
- 5G wireless and WISP backhaul
- Enterprise and private networks
- Government, defense and public safety networks
- Critical infrastructure communications redundancy
- Star, cascade, or ring network topologies



Cielo Networks, Inc.
8375 Camino Santa Fe, Suite A
San Diego, CA 92121
Tel: 1-817-488-9473
www.cielonetworks.com
info@cielonetworks.com

Technical Specifications

SkyLink-CG2X

General Information	7 GHz	10 GHz	15 GHz	38 GHz
Frequency Range (GHz)	7.1 – 7.9	10.1 – 10.7	14.5 – 15.3	37.0 – 39.5
T-R Spacing (MHz)	154/161/168/196/245	350	420/728	1260
RF Channel Bandwidth (MHz)	14/28/56/112	14/28/56/112	14/28/56/112	14/28/56/112
Frequency Accuracy	5 PPM			

Radio Information	7 GHz								10 GHz							
Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024Q	QPSK	16QAM	32QAM	64QAM	128Q	256Q	512Q	1024Q
Transmit Power (dBm)	28	25	25	25	25	24	23	22	26	25	25	24	24	23	22.5	21.5
Receiver Sensitivity* (BER 10e-6)	-85	-78	-75	-72	-69	-66	-63	-60	-85	-78	-75	-72	-69	-66	-63	-60
Receiver Overload (BER 10-e-6)	-20	-20	-20	-23	-23	-23	-23	-23	-20	-20	-20	-23	-23	-23	-23	-23

Radio Information	15 GHz								38 GHz							
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Transmit Power (dBm)	25	24	24	23	23	23	22	22	20	18	18	17	17	16	16	15
Receiver Sensitivity* (BER 10e-6)	-85	-78	-75	-72	-69	-66	-63	-60	-85	-78	-75	-72	-69	-66	-63	-60
Receiver Overload (BER 10-e-6)	-20	-20	-20	-23	-23	-23	-23	-23	-20	-20	-20	-23	-23	-23	-23	-23

* Receiver sensitivity 3dB less for 56 MHz,
6dB less for 112 MHz Channel

		Capacity Bandwidth (Mbps) – Typical with Strong FEC								
Modulation		QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024QAM	
RF Channel Size	14 MHz	21	42	53	64	75	85	96		
	28 MHz	43	87	108	130	152	174	196	217	
	30 MHz	46	92	115	138	161	184	208	231	
	40 MHz	61	123	154	184	215	246	277	308	
	50 MHz	76	152	190	229	267	305	343	381	
	56 MHz	87	175	219	263	302	351	394	438	
	60 MHz	91	182	227	273	318	364	410	455	
	112 MHz	158	318	398	478	549	638	717	797	

Payload

Ethernet: 15 to 1000 Mbps

Physical Interfaces

Ethernet

4xSFP Slot (1Gbps/2.5Gbps/STM1)

2xRJ-45 10/100/1000Base-TX

1XRJ-45 10/100/1000Base-TX

(NMS/User)

Physical Interfaces

Input Voltage

-48VDC: -36 to -60 VDC

Power Consumption

IDU: 30W

ODU: 28W (per ODU)

Encryption

AES: 128 or 256 bit

Management

Remote Access

SNMP V2, V3

Web-based GUI (HTTP/HTTPS)

Telnet/SSH - CLI

Interface: 10/100/1000Base-T,

RJ-45

Local Access

Ethernet: GUI/Telnet

Interface: USB

Topology

In-Band and Out-of-Band Management with embedded switch

RSL Measurement

Voltage output at ODU with BNC port and Web GUI

Environmental

Indoor Unit

Operating temperature: -5 to +45°C

Relative Humidity: 0 to 95%

Altitude: 4,500m

Outdoor Unit

Operating temperature: -40 to +55°C

Relative Humidity: 0 to 100%

Altitude: 4,500m

Mechanical

Indoor Unit

Size: 8.5W x 9.9D x 1.8H inches (1RU)

Weight: 5.0 lbs

Outdoor Unit

Size (inches)

6-8 GHz 8.9 x 8.9 x 4.6 inches

11-42 GHz 8.9 x 7.7 x 3.2 inches

Weight: 4.5 lbs

		Capacity Bandwidth (Mbps) – Medium FEC								
		Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024QAM
RF Channel Size	14 MHz	23	46	57	69	80	92	103		
	28 MHz	46	93	116	140	163	186	210	233	
	30 MHz	49	99	123	148	173	198	223	247	
	40 MHz	66	132	165	198	231	264	297	330	
	50 MHz	81	163	204	245	286	327	368	409	
	56 MHz	94	188	235	282	329	376	423	470	
	60 MHz	97	195	244	293	342	391	439	488	
	112 MHz	171	342	427	513	598	684	769	855	

		Capacity Bandwidth (Mbps) – Light FEC								
		Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024QAM
RF Channel Size	14 MHz	24	48	60	72	84	96	108		
	28MHz	49	98	122	147	171	196	220	245	
	30 MHz	52	104	130	156	182	208	234	260	
	40 MHz	69	138	173	208	243	277	312	347	
	50 MHz	86	172	215	258	301	344	387	430	
	56 MHz	98	197	247	296	346	395	445	494	
	60 MHz	102	205	256	308	359	410	462	513	
	112 MHz	178	358	449	538	629	718	809	899	

- Medium FEC – reduce receiver sensitivity by 1dB from specification
- Light FEC – reduce receiver sensitivity by 2dB from specification