

SkyLink-CG2X

Compact High-Capacity Gigabit Ethernet PTP Radio

Delivering High Bandwidth Licensed Microwave Solutions

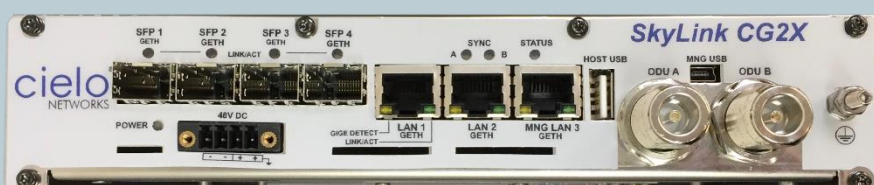


Features

- 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 670 Mbps Ethernet for 1+0 and 1340 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, 1024, and 2048 QAM
- 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 in a single CG2X unit
- Split 1+1/2+2 HSB protection with two CG2X units
- Compact IDU size of one RU height and one half 19-inch rack unit
- Common compatible IDU for all ODU RF bands
- User friendly web GUI solution
- SNMP remote management
- STM-1/OC-3 and E1/T1 legacy network support

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



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Technical Specifications

SkyLink-CG2X

General Information	L6 / U6 GHz	11 GHz	18GHz	23 GHz
Frequency Range (GHz)	5.9 – 6.4 / 6.5 – 6.9	10.7 – 11.7	17.7 – 19.7	21.2 – 23.6
T-R Spacing (MHz)	252.04 / 160	490/500	1560	1200
RF Channel Bandwidth (MHz)	10/30/60	10/30/40/80	10/20/30/40/50/80	10/20/30/40/50
Emission Designator	10MOD7W/ 30MOD7W/60MOD7W	10MOD7W/30MOD7W 40MOD7W/60MOD7W 80MOD7W	10MOD7W/30MOD7W 40MOD7W/50MOD7W 60MOD7W/80MOD7W	10MOD7W/20MOD7W 30MOD7W/40MOD7W/ 50MOD7W
Frequency Accuracy	5 PPM			

Radio Information	6 GHz										11 GHz									
Modulation	QPSK	16QAM	32QAM	64QAM	128Q	256Q	512Q	1024Q	2048Q	QPSK	16QAM	32QAM	64QAM	128Q	256Q	512Q	1024Q	2048Q		
Transmit Power (dBm)	28	25	25	25	25	24	23	22	22	26	25	25	24	24	23	22.5	21.5	21.5		
Receiver Sensitivity* (BER 10e-6)	-85	-78	-75	-72	-69	-66	-63	-60	-57	-83	-77	-74	-71	-68	-64	-61	-58	-55		
Receiver Overload (BER 10-e-6)	-20	-20	-20	-23	-23	-23	-23	-23	-23	-20	-20	-20	-23	-23	-23	-23	-23	-23		

Radio Information	18 GHz										23 GHz									
Modulation	QPSK	16QAM	32QAM	64QAM	128Q	256Q	512Q	1024Q	2048Q	QPSK	16QAM	32QAM	64QAM	128Q	256Q	512Q	1024Q	2048Q		
Transmit Power (dBm)	24	23	23	22	22	22	21	21	20	24	23	23	22	22	22	21	21	20		
Receiver Sensitivity* (BER 10e-6)	-83	-77	-74	-71	-68	-64	-61	-58	-55	-82	-75	-72	-69	-66	-63	-60	-57	-54		
Receiver Overload (BER 10-e-6)	-20	-20	-20	-23	-23	-23	-23	-23	-23	-20	-20	-20	-23	-23	-23	-23	-23	-23		

* Receiver sensitivity 3dB less for 60 MHz and 80 MHz channel

	Capacity Bandwidth (Mbps) – Typical with Strong FEC									
	Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024QAM	2048QAM
RF Channel Size	10 MHz	15	30	38	46					
	20 MHz	30	61	77	92	107	123	138	154	169
	30 MHz	46	92	115	138	161	184	208	231	254
	40 MHz	61	123	154	184	215	246	277	308	339
	50 MHz	76	152	190	229	267	305	343	381	420
	56 MHz	87	175	219	263	302	351	394	438	482
	60 MHz	91	182	227	273	318	364	410	455	501
	80 MHz	111	223	279	335	391	447	503	559	670

Payload

Ethernet: 15 to 1340 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

Technical Specifications

SkyLink-CG2X

	Capacity Bandwidth (Mbps) – Medium FEC									
	Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024QAM	2048QAM
RF Channel Size	10 MHz	16	33	41	49					
	20 MHz	33	66	82	99	115	132	148	165	180
	30 MHz	49	99	123	148	173	198	223	247	270
	40 MHz	66	132	165	198	231	264	297	330	361
	50 MHz	81	163	204	245	286	327	368	409	448
	56 MHz	94	188	235	282	329	376	423	470	514
	60 MHz	97	195	244	293	342	391	439	488	544
	80 MHz	120	240	300	360	420	480	540	600	711

	Capacity Bandwidth (Mbps) – Light FEC									
	Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024QAM	2048QAM
RF Channel Size	10 MHz	17	34	43	52					
	20 MHz	34	69	86	104	121	138	156	173	188
	30 MHz	52	104	130	156	182	208	234	260	283
	40 MHz	69	138	173	208	243	277	312	347	378
	50 MHz	86	172	215	258	301	344	387	430	469
	56 MHz	98	197	247	296	346	395	445	494	538
	60 MHz	102	205	256	308	359	410	462	513	569
	80 MHz	126	252	315	378	441	504	567	630	741

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