

SkyLink-CG2X-HP

Compact High-Capacity Gigabit Ethernet PTP
High Power Radio

Delivering High Bandwidth Licensed Microwave Solutions

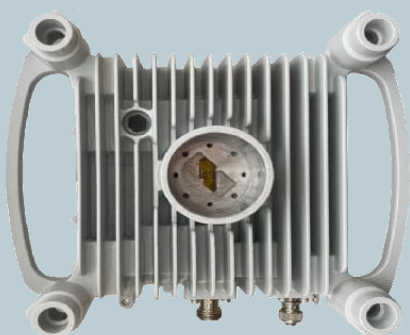
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NETWORKS

Features

- High-capacity digital microwave system – greater than 1000 Mbps
- Up to 32 dBm transmit power
- Licensed band PTP digital microwave system for all FCC/ETSI bands – 6/7/8/11/13/15/18/23GHz
- 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



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Technical Specifications SkyLink-CG2X-HP

General Information	L6 / U6 GHz	7 GHz	8 GHz	11 GHz
Frequency Range (GHz)	5.9 – 6.4 / 6.5 – 6.9	7.1 – 7.9	7.7 – 8.5	10.7 – 11.7
T-R Spacing (MHz)	252.04 / 160	154/161/168/196/245	119/126/208/266/ 311.32	490/500
RF Channel Bandwidth (MHz)	10/28/30/60	14/28/56/112	14/28/56/112	10/30/40/80
Frequency Accuracy	5 PPM			

Radio Information	6 GHz								7 GHz							
Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024Q	QPSK	16QAM	32QAM	64QAM	128Q	256Q	512Q	1024Q
Transmit Power (dBm)	32	32	32	31	31	30	30	30	32	32	32	31	31	30	30	30
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	8 GHz								11 GHz							
Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024Q	QPSK	16QAM	32QAM	64QAM	128Q	256Q	512Q	1024Q
Transmit Power (dBm)	32	32	32	31	31	30	30	30	30	29	29	28	28	26	26	25
Receiver Sensitivity* (BER 10e-6)	-85	-78	-75	-72	-69	-66	-63	-60	-83	-77	-74	-71	-68	-64	-61	-58
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 60 MHz and 80 MHz channel

	Capacity Bandwidth (Mbps) – Typical with Strong FEC								
	Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024QAM
RF Channel Size	10 MHz	15	30	38	46				
	20 MHz	30	61	77	92	107	123	138	154
	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
	80 MHz	111	223	279	355	391	447	503	559

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: 55W (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: 10.9 x 9.5 x 4.8 inches

Weight: 10.8 lbs

Technical Specifications SkyLink-CG2X-HP

		Capacity Bandwidth (Mbps) – Medium FEC								
		Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024QAM
RF Channel Size	10 MHz	16	33	41	49					
	20 MHz	33	66	82	99	115	132	148	165	
	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	
	80 MHz	120	240	300	360	420	480	540	600	

		Capacity Bandwidth (Mbps) – Light FEC								
		Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024QAM
RF Channel Size	10 MHz	17	34	43	52					
	20 MHz	34	69	86	104	121	138	156	173	
	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	
	80 MHz	126	252	315	378	441	504	567	630	

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