SkyLink CG2X AI

All Indoor High Capacity Gigabit Ethernet PTP Radio System

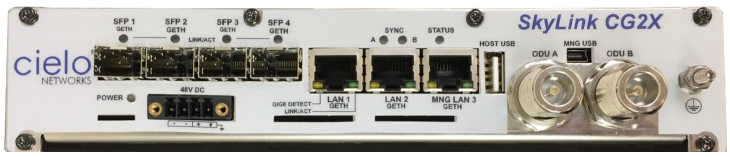
Delivering High Bandwidth Licensed Microwave Solutions

Features

- High Capacity Digital Microwave System — over 970 Mbps
- Licensed band PTP All-Indoor digital microwave system for all FCC/NTIA/ETSI bands at 6/7/8/11 GHz
- Scalable GigE IP bandwidth - up to 488 Mbps Ethernet for 1+0, 976 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 1024 QAM
- Dynamic Hitless Adaptive Modulation and advanced forward error correction techniques for improved link performance
- AES 128-bit / 256-bit Encryption
- ATPC Support
- 1+1 Hot-Standby/Space Diversity, 2+0, and Split 1+1/2+2
- Compact IDU size of one RU height & one half 19-inch rack width
- Indoor Radio with High Power and Very High Power at 6, 7, and 8 GHz
- SNMP remote management
- User friendly Web GUI management solution

Applications

- Fixed Wireless Access & Fiber Network Extension
- Cellular, WiMAX, and WISP Backhaul
- Enterprise and Private Networks
- Government, Defense, and Public Safety Networks
- Critical Infrastructure Communications Redundancy
- Star, Cascade (“daisy chain”), or Ring/Consecutive Point Network Topologies



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Technical Specifications

SkyLink CG2X AI

General Information	L6 / U6 GHz	7 GHz	8 GHz	11 GHz
Frequency Range	5.9 - 7.1 GHz	7.1 - 7.9 GHz	7.9 - 8.5 GHz	10.7 - 11.7 GHz
T-R Spacing	Any T/R*			
RF Channel Spacing	7/10/14/20/25/28/30/40/56/60 MHz			
Frequency Accuracy	7 PPM			

*** FCC requires minimum T/R for U6GHz(70MHz) and 7/8GHz (63MHz)**

6 GHz							
QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024QAM
34 dBm	33 dBm	32 dBm	31 dBm	30 dBm	29 dBm	27 dBm	25 dBm
35 dBm	34.5 dBm	34 dBm	33.5 dBm	33 dBm	32 dBm	32 dBm	32 dBm
-81 dBm	-76 dBm	-73 dBm	-70 dBm	-67 dBm	-64 dBm	-62 dBm	-61 dBm
-20 dBm	-20 dBm	-20 dBm	-23 dBm	-23 dBm	-23 dBm	-23 dBm	-23 dBm

7/8 GHz							
QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024QAM
33.5 dBm	32.5 dBm	31.5 dBm	30.5 dBm	29.5 dBm	28.5 dBm	26 dBm	24 dBm
35 dBm	34.5 dBm	34 dBm	33.5 dBm	33 dBm	32 dBm	32 dBm	32 dBm
-80 dBm	-77 dBm	-75 dBm	-70 dBm	-67 dBm	-64 dBm	-61 dBm	-60 dBm
-20 dBm	-20 dBm	-20 dBm	-23 dBm	-23 dBm	-23 dBm	-23 dBm	-23 dBm

11 GHz							
QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	512QAM	1024QAM
31 dBm	30 dBm	29 dBm	28 dBm	27 dBm	26 dBm	24 dBm	22 dBm
-82 dBm	-77 dBm	-74 dBm	-71 dBm	-69 dBm	-64 dBm	-62 dBm	-61 dBm
-20 dBm	-20 dBm	-20 dBm	-23 dBm	-23 dBm	-23 dBm	-23 dBm	-23 dBm

	Capacity Bandwidth - Typical (Medium FEC)							
	Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256 QAM	512 QAM	1024 QAM
RF Channel Size	10 MHz	16 Mbps	33 Mbps	41 Mbps	49 Mbps				
	20 MHz	33 Mbps	66 Mbps	82 Mbps	99 Mbps	115 Mbps	132 Mbps	148 Mbps	165 Mbps
	30 MHz	49 Mbps	99 Mbps	123 Mbps	148 Mbps	173 Mbps	198 Mbps	223 Mbps	247 Mbps
	40 MHz	66 Mbps	132 Mbps	165 Mbps	198 Mbps	231 Mbps	264 Mbps	297 Mbps	330 Mbps
	50 MHz	81 Mbps	163 Mbps	204 Mbps	245 Mbps	286 Mbps	327 Mbps	368 Mbps	409 Mbps
	56 MHz	94 Mbps	188 Mbps	235 Mbps	282 Mbps	329 Mbps	376 Mbps	423 Mbps	470 Mbps
	60 MHz	97 Mbps	195 Mbps	244 Mbps	293 Mbps	342 Mbps	391 Mbps	439 Mbps	488 Mbps

	Capacity Bandwidth - Strong FEC							
	Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256 QAM	512 QAM	1024 QAM
RF Channel Size	10 MHz	15 Mbps	30 Mbps	38 Mbps	46 Mbps				
	20 MHz	30 Mbps	61 Mbps	77 Mbps	92 Mbps	107 Mbps	123 Mbps	138 Mbps	154 Mbps
	30 MHz	46 Mbps	92 Mbps	115 Mbps	138 Mbps	161 Mbps	184 Mbps	208 Mbps	231 Mbps
	40 MHz	61 Mbps	123 Mbps	154 Mbps	184 Mbps	215 Mbps	246 Mbps	277 Mbps	308 Mbps
	50 MHz	76 Mbps	152 Mbps	190 Mbps	229 Mbps	267 Mbps	305 Mbps	343 Mbps	381 Mbps
	56 MHz	87 Mbps	175 Mbps	219 Mbps	263 Mbps	307 Mbps	351 Mbps	394 Mbps	438 Mbps
	60 MHz	91 Mbps	182 Mbps	227 Mbps	273 Mbps	318 Mbps	364 Mbps	410 Mbps	455 Mbps

Payload

Ethernet: 15 to 1000 Mbps max, 976 Mbps typ.

Physical Interfaces

Ethernet

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

Modem/IF Module

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

RF Interface

6 GHz: WR137 (CPR-137G)
7/8 GHz: WR112 (CPR-112G)
11 GHz: WR90 (CPR-90G)

Encryption

AES: 128 or 256 bit

Management

Remote Access

SNMP V2, V3
Web-Based GUI (HTTP/HTTPs)
Telnet/SSH - Command Line Interface
Interface: 10/100/1000Base-TX, 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 IRU with voltmeter leads and Web-GUI

Environmental

Indoor Unit

Operating Temperature: -5° to +45°C
Relative Humidity: 0 to 95%, non-condensing
Altitude: 4,500 m

Mechanical

Indoor Unit

Size: 8.5W x 9.9D x 1.8H inches (1RU)
Weight: 5.0 pounds

Indoor Radio Unit

Size: 17.5W x 11D x 4.8H inches (3RU)
Weight: 17.8 pounds 1+0, 26 pounds 1+1

Power

Input Voltage

Indoor Unit

-48VDC: -36 to –60 VDC
Interface: 4 Pin Phoenix Contact

Indoor Radio Unit

-48VDC: -20 to -60 VDC
Interface: 2 Pin Positronic Industries Combo -D

Power Consumption

1+0: 30W (IDU) + 81W (Radio)
1+1 : 30W (IDU) + 103W (Radio)

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