

# SkyLink CG

## Compact Gigabit Ethernet PTP Radio System

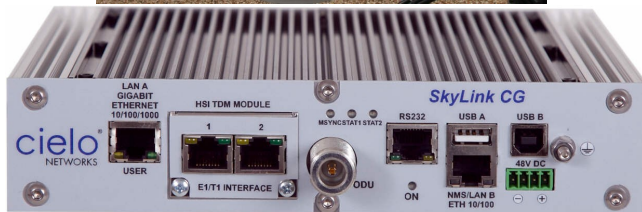
*Delivering Scalable Bandwidth Licensed Microwave Solutions*

## 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: Single GigE Electrical Port and Ethernet Switch
- Scalable GigE IP bandwidth - 15 to 310 Mbps Ethernet
- Scalable modulation - QPSK/16QAM/32QAM/64QAM/128QAM/256QAM
- 2xT1/E1 or 1xDS3/E3 optional interface available
- Simple capacity upgrades with software key
- Dynamic Adaptive Modulation and advanced forward error correction techniques for improved link performance
- Common compatible IDU for all ODU RF bands
- Compact IDU size of one RU and height and half 19-inch rack width
- Rugged single PCB design
- SNMP remote management
- User friendly Web GUI management solution
- High performance at unrivaled cost effectiveness

## 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 CG

General Information	L6 / U6 GHz	11 GHz	18 GHz	23 GHz	39 GHz
Frequency Range	5.9-6.4 / 6.5-6.9 GHz	10.7 - 11.7 GHz	17.7 - 19.7 GHz	21.2 - 23.6 GHz	38.6 - 40.0 GHz
T-R Spacing	252.04 / 160 & 170 MHz	490 MHz	1560 MHz	1200 MHz	700 MHz
RF Channel Spacing	10/30 MHz	10/30/40 MHz	10/20/30/40/50/80 MHz	10/20/30/40/50 MHz	50 MHz
Emission Designator	10M0D7W/ 30M0D7W	10M0D7W/30M0D7W/ 40M0D7W	10M0D7W/20M0D7W/30M0D7W/ 40M0D7W/50M0D7W/56M0D7W	10M0D7W/20M0D7W/30M0D7W/ 40M0D7W/50M0D7W	50M0D7W
Frequency Accuracy	7 PPM				

Radio Information	6 GHz					11 GHz						
Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM
Transmit Power	N/A for FCC						N/A for FCC	25 dBm	25 dBm	21 dBm	21 dBm	21 dBm
Receiver Sensitivity (BER 10e-6)	N/A for FCC						N/A for FCC	-77 dBm	-74 dBm	-71 dBm	-69 dBm	-64 dBm
Receiver Overload (BER 10e-6)	N/A for FCC						N/A for FCC	-20 dBm	-20 dBm	-23 dBm	-23 dBm	-23 dBm

Radio Information	18 GHz					23 GHz						
Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM
Transmit Power	25 dBm	22 dBm	22 dBm	17 dBm	17 dBm	17 dBm	25 dBm	22 dBm	22 dBm	17 dBm	17 dBm	17 dBm
Receiver Sensitivity (BER 10e-6)	-87 dBm	-80 dBm	-73 dBm	-70 dBm	-68 dBm	-65 dBm	-86 dBm	-80 dBm	-74 dBm	-71 dBm	-69 dBm	-65 dBm
Receiver Overload (BER 10e-6)	-20 dBm	-20 dBm	-20 dBm	-23 dBm	-23 dBm	-23 dBm	-20 dBm	-20 dBm	-20 dBm	-23 dBm	-23 dBm	-23 dBm

Radio Information	39 GHz					
Modulation	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM
Transmit Power						
Receiver Sensitivity (BER 10e-6)						
Receiver Overload (BER 10e-6)	-20 dBm	-20 dBm	-20 dBm	-23 dBm	-23 dBm	-23 dBm

		Capacity Bandwidth					
Modulation		QPSK	16QAM	32QAM	64QAM	128QAM	256 QAM
RF Channel Size	10 MHz	15 Mbps	30 Mbps	38 Mbps	46 Mbps		
	20 MHz	31 Mbps	63 Mbps	79 Mbps	95 Mbps	110 Mbps	
	30 MHz	47 Mbps	95 Mbps	119 Mbps	144 Mbps	167 Mbps	191 Mbps
	40 MHz	60 Mbps	121 Mbps	152 Mbps	182 Mbps	209 Mbps	239 Mbps
	50 MHz	78 Mbps	157 Mbps	197 Mbps	237 Mbps	276 Mbps	310 Mbps
	56 MHz	82 Mbps	168 Mbps	210 Mbps	252 Mbps	299 Mbps	310 Mbps

## Payload

Ethernet: 15 to 310 Mbps  
T1/E1: 0/2  
DS3/E3: 0/1

## Physical Interfaces

Ethernet: 1xRJ-45 10/100/1000Base-TX  
1xRJ-45 10/100Base-TX (NMS or User)  
T1/E1: 2xRJ-48c  
DS3/E3: BNC

## Modem/IF Module

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

## Power

**Input Voltage**  
-48VDC: -36 to -72 VDC  
**Interface:** 4 Pin Phoenix Contact  
**Power Consumption**  
1+0: 72W

## Management

### Remote Access

SNMP V1, V2C  
Web-Based GUI  
Telnet - Command Line Interface  
Interface: 10/100Base-TX, RJ-45 (out-of-band),  
10/100/1000Base-TX (In-Band)

### Local Access

**Serial:** Command Line Interface  
**Interface:** USB, Serial Interface

### Topology

In-Band and Out-of-Band Management with  
embedded 2x10/100 switch

### RSL Measurement

Voltage output at ODU with BNC Interface and  
Web-GUI

## Environmental

### Indoor Unit

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

### Outdoor Unit

**Operating Temperature:** -33° to +55°C  
**Relative Humidity:** 0 to 100%  
**Altitude:** 4,500 m

## Mechanical

### Indoor Unit

**Size:** 8.5W x 7.9D x 1.8H inches (1RU)  
**Weight:** 5.0 pounds

### Outdoor Unit

**Size:** 10.5 dia x 3.5 deep inches  
**Weight:** 10.1 pounds