



Solectek SkyWay-GB-X10 Series: configured for a 1+0 dual radio operation coupled with a compact size 1 FT antenna.

Antenna options are 1FT and 2FT sizes.

5GHz Backup Link:

Fully tested 5GHz Backup link option is available for customers interested in bringing the link uptime to near 100%, regardless of weather conditions.

Applications

- Mobile Backhaul – large capacity backhaul for 4G LTE networks
- Network Operator – Flexible combination of Gigabit Ethernet backbone, STM-16 / STM-4 transport, and LTE CPRI transport
- Government – Video surveillance, traffic monitoring, public safety network backhaul
- Enterprise – Server centralization, remote data storage and backup, lease line replacement

Product Summary

Solectek's GB-X10 series millimeter wave radio links represent a true milestone in radio link development. Capable of carrying close to 10Gbps full duplex data, GB-X10 links can be used to build a 10G backbone network instead of fiber or as part of a fiber backbone ring where fiber is difficult to use. GB-X10 is an advanced radio system that combines ultra high data rate and carrier-grade features. For enterprise/government applications, the GB-X10 system's increased link capacity of 9.7Gbps will provide flexibility and protection against future bandwidth growth.

It is also ideal for backbone links for carriers that desire to have the flexibility among legacy OC-12/48/192 STM-4/16/64 circuits and new metro Ethernet / LTE CPRI interfaces up to Option 7 (9830.4Mbps). The GB-X10 Series comes with a full set of carrier-grade features such as QoS prioritization, VLAN, Q-in-Q, SynE, PTP per IEEE1588v2, and Ethernet OAM support

Aside from the basic model (1+0), two other models are available. For added reliability, the user can deploy a 1+1 HSB configuration where a second redundant unit can be added by using a coupler. For increased link capacity, a 2+0 configuration can be used to transmit up to 20 Gbps.

Using spectrum efficient modulations up to 256QAM and up to 2000MHz of bandwidth, the link capacity is increased to 9.7 Gbps. The bandwidth can be adjusted down to 500MHz for better link reliability. The adaptive modulation feature can be used to further protect the link in adverse RF conditions by shifting the modulation from 256QAM to BPSK.

Features and Advantages

- Full-Duplex Multi-Gigabit Ethernet – 9.7 Gbps (1+0), 19.4 Gbps (2+0)
- Multi protocol Support—GigE and STM, CPRI
- Support for CPRI option 7 (9830.4Mbps)
- Adaptive modulation from BPSK to 256QAM
- Five port GigE switch – (2) copper (POE), (1) 10G SFP, (2) 2.5G SFP
- Protection port for 1+1 (RJ-45 1G copper)
- CPRI interface – option 1 (614.4 Mbps) to Option 7 (9830.4 Mbps)
- TDM interface – OC-12/STM-4 or OC-48/STM-16
- Automatic Transmit Power Control (ATPC)
- Quality of Service traffic prioritization / VLAN (802.1p), Q-in-Q (802.1ad)
- Synchronous Ethernet per G.826 and G.8262
- Ethernet OAM support (802.3ah, 802.1ag)
- Fully redundant 1+1 operation or 2+0 support with XPIC
- Optional 256AES encryption

Frequency	Range: 71–76 GHz / 81–86 GHz , T/R spacing: 10 GHz, FDD, stability: +/- 10 ppm Channelization: software selectable among 500, 1000 or 2000 MHz Software selectable channels in increment of 250MHz, per ITU-R F.2006 recommendations					
Configuration	1+0 Non Protected, 1+1 redundant monitored HSB with coupler 2+0 dual radio configuration with OMT coupler					
Data Rate	9.7 Gbps (1+0) plus SDH and/or CPRI traffic					
FEC	Low Density Parity Checking (LDPC) - 3 dB enhancement in link budget					
Modulation (ETSI)	QPSK	16QAM	32QAM	64QAM	128QAM	256QAM
BW (GHz)	0.5/1/2	0.5/1/2	0.5/1/2	0.5/1/2	0.5/1/2	0.5
Data Rate (Mbps)	752/1504/2765	1504/3008/5531	1880/3761/6914	2257/4513/8297	2633/5265/9680	3009
Tx Power (dBm)	17	15	14	13	12/10/9	9
Rx Sens (dBm)	-76/-67/-64	-68.5/-59.5/-56.5	-65/-56/-53	-62/-53/-50	-59/-50/-47	-55.5
Ethernet Interface	(1) 10G/2.5G/1G SFP+ slot, (2) 2.5G/1G SFP+ slots and (2) 1000Base-T port (POE) (1) 1000Base-T port for protection (1+1)					
TDM/CPRI Interface	(1) SFP Lot for SDH/SONET: STM-4/OC-12 (622.08 Mbps) or STM-16/OC-48 (2488.32Mbps) CPRI Options 1 to 7 (614.4 Mbps to 9830.4 Mbps)					
Networking	Quality of Service per IEEE 802.1p, VLAN per IEEE 802.1p, up to 4096 VLANs Provider Bridge Q-in-Q per IEEE 802.1ad MEF compliant traffic policing (two rate, three color scheme) Ethernet ring protection per G.8032, Linear per G.8031, MPLS-TP Protection (G.8131 & 8132) SyncE per ITU-T G.8261, G.8262, Precision Time Protocol per IEEE1588v2 Scheduler: 8 queues, user configurable Strict Priority or Shaped Deficit Weighted Round Robin (SDWRR) Jumbo frame size up to 10,000 bytes Multiple Spanning Tree Protocol (MRTP), Rapid Spanning Tree Protocol (RSTP) Link state propagation: Rapid Link shutdown (RSP) supports remote port LSP					
Latency	As low as 12 μ s, depending on configuration					
Encryption	AES 256-bit encryption (optional, where applicable)					
Management	Web-based HTTPS, SNMP support for v1, v2, and v3, Syslog, Ethernet OAM, Loopback for SDH/SONET					
Power	Telco -48V DC (-38 to -70VDC range), 48W power consumption, POE option via RJ-45					
Size & Weight	13.1"W x 11.6"H x 4"D (33.4 x 29.5 x 10.2 cm) , 9.6 lbs (4.4 kg)					
Environmental	-33 to 55 deg C per EN 300 019 Clas 4.1, IP66 Enclosure, RoHS & WEEE compliant					
Antenna	1 FT antenna (44 dBi, 0.8° beam width) OR 2FT antenna (51 dBi 0.4° beam width) Fine adjust pole mount: 3.5 – 4.5" (8.9 – 11.4 cm) diameter pole size					
Regulatory	US FCC Part 101, CE Mark EN60950-1 EMI/EMC EN 301 489					

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