



Lynx.GX 4E, 8E

Wireless Point-to-Point Digital Radios

New Manageability and Installation Flexibility Lowers Total Cost of Ownership (TCO)

Lynx®.GX is a high-capacity, full-duplex point-to-point digital radio product line with a unique split-box design. This new generation of products, designed for maximum installation flexibility, provides unprecedented system gain and carrier-class operational features for cellular backhaul, enterprise voice applications and voice network redundancy.

- Adapts to individual maintenance, system performance, and budget requirements to fit a variety of specific operator needs
- Simplifies future upgrades by requiring only Indoor Unit (IDU) replacement as capacity requirements grow
- Two-piece split-box assembly, consisting of an Indoor Unit (IDU) and an RF Unit, provides installation flexibility
- Indoor-only installation facilitates quick maintenance and easier upgrades
- Indoor/outdoor installation improves system gain, lowers tower leasing costs and reduces total cost of ownership

Easily Manage and Troubleshoot Your Wireless Network

Lynx.GX radios offer sophisticated, preventative management tools to simplify network maintenance and eliminate downtime. Advanced diagnostic tools identify and isolate potential issues before they impact the network.

- Standards-based SNMP management and web-based GUI simplifies remote management and integrates easily into existing software platforms
- Built-in spectrum analyzer and an alarm log facilitate RF planning and post-deployment tuning

Cost-Effectively Prepare For Future Growth

The range of Lynx products gives operators the choice of capacity they need, allowing them to grow to support higher-bandwidth cellular backhaul applications.

- Extra capacity for bandwidth-intensive applications such as multimedia services, photo sharing, text messaging and handset Internet access
- Superior system gain ensures consistent, carrier-class transmission of growing network traffic
- No expensive recurring leased line costs
- Wayside Ethernet Channel enables far-end management of both Proxim and Non-Proxim equipment

Deploy in Days

Because Lynx radios operate in license-exempt ISM frequency bands, they can be deployed quickly – eliminating the long lead times associated with leasing lines or trenching new fiber optic cable.

- Rapid deployment and flexible re-deployment
- Mobile operators minimize costly network downtime
- License-exempt frequencies accelerate time-to-revenue by avoiding lengthy and costly licensing procedures

Reliable and Secure

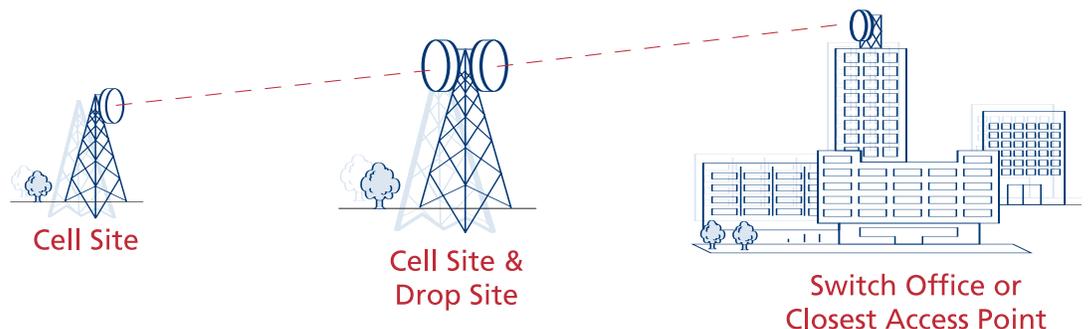
Lynx radios offer the highest security and reliability available in networking today.

- True Carrier-Class reliability
 - Over 99.999% reliable RF transmission
- Meets or exceeds wired network security
- Proprietary encryption methods ensure secure data transmission



APPLICATIONS

- Cellular voice backhaul
- Backbone connection
- High-capacity voice network redundancy



Lynx.GX 4E, 8E Specifications

| PRODUCT | FREQUENCY BAND | DIGITAL CAPACITY | CHANNEL PAIRS | THRESHOLD (BER=1X10 ⁻⁶) | OUTPUT POWER ¹ | SYSTEM GAIN | DISTANCE (MILES/KM) ⁴ |
|--------------|----------------|---------------------|---------------|-------------------------------------|---------------------------|-----------------------|----------------------------------|
| Lynx.GX 4xE1 | 5725-5850 MHz | 4xE1 (4x1.544 Mbps) | 3 (A, B, C) | ≤-88 dBm | +23.5 dBm | 111.5 dB, 114 dB typ. | >36/58.1 |
| Lynx.GX 8xE1 | | 8xE1 (8x2.0 Mbps) | 2 (A, B) | ≤-85 dBm | | 108.5 dB, 112 dB typ. | >32.8/52.9 |

SYSTEM

| | |
|------------------------|-------------------------------------|
| Configuration | Split-box: IDU, RF Unit |
| Modulation | DSSS: QPSK |
| Frequency Stability | ±10 ppm |
| RF Attenuation Range | ≥20 dB |
| Maximum Receive Signal | -20 dBm error free; 0 dBm no damage |
| Error Floor | <10 ⁻¹¹ |
| Error Correction | Reed-Solomon |
| Security | 12 character Link ID (48 bits) |
| Regulatory Compliance | CEPT-1:ITU-TG703 |
| FCC ID | HZB-S58-GX1 |

DIGITAL LINE INTERFACES

| | |
|----------------------|---------------------------------|
| CEPT-1 (4 or 8 each) | |
| Connector | RJ-48C modular jack |
| Line Code | HDB3 |
| Loopback | Local, Far End, Internal Signal |

AUXILIARY INTERFACES

| | |
|-------------------|---|
| Orderwire (DTMF) | RJ-11, 100 addresses |
| VF | 8 pin modular jack, 4-wire 0dBm @ 600 ohm, balanced |
| Aux Data (serial) | 8 pin modular jack, EIA-561 ≤19.2kbps, selectable, DCE |

FAULT AND CONFIGURATION MANAGEMENT

| | |
|--------------------|---|
| Network Management | SNMP v2c (MIB II, enterprise MIBs), embedded HTML server, Telnet, VT-100 terminal |
| Far End Management | Via NMS (embedded router, gateway address, subnet mask), front panel display |

Interfaces

| | |
|--------------------------|------------------------------------|
| NMS 1 | 10/100BaseT, RJ-45, auto-sense |
| NMS 2 | 10/100BaseT, RJ-45, auto-sense |
| Configuration (serial) | EIA-574, 9600bps, 9-pin Sub-D, DTE |
| External Alarm Interface | |
| Connector | 9-pin Sub-D female |
| Outputs | 2 Form C Relays (Major, Minor) |
| Inputs | 2 TTL with internal pull-ups |

POWER/ENVIRONMENT

| | |
|------------------------|--|
| Input Voltage Range | -20 to -60 Vdc or +20 to +60 Vdc |
| Power Consumption | <70 Watts |
| Power Connector | 3-pin terminal block |
| Operating Temperature | |
| IDU | 0°C to +50°C |
| RF Unit | -30°C to +55°C |
| Humidity | |
| IDU | 95%, non-condensing |
| RF Unit | 100%, condensing |
| Altitude | up to 15,000 ft/5000 m |
| Wind Loading (RF unit) | up to 110 mph/96 kts |
| MTBF | >100,000 hours (each IDU and RF Unit) |

PHYSICAL DIMENSIONS

| | IDU | RF Unit |
|-----------------|--|--|
| Size (in/cm) | 17.2 X 10.9 X 1.72/ 43.6 X 27.6 X 4.4 | 14.1 X 10.9 X 1.72/ 35.8 X 27.6 X 4.4 |
| Weight (lbs/kg) | 6.5/2.9 | 12.0/5.4 |

MECHANICAL

| | |
|--------------|---|
| RF Unit | |
| Antenna Port | Type-N female (outdoor RF cable not provided) |
| IDU Port | TNC female |
| Cable to IDU | LMR-240 or equiv. <100m; LMR-400 or equiv. <200m; LMR-600 or equiv. <300m |
| Mounting | |
| IDU | EIA rackmount, 19" or 23", 1RU |
| RF Unit | EIA rackmount, 19" or 23", 1RU, or outdoor pole mount bracket (optional) |

SELECTABLE FREQUENCY CHANNEL PAIR



ORDERING INFORMATION

| | |
|-------------|--|
| 62294 | Lynx.GX 4E, Low Band Terminal |
| 62295 | Lynx.GX 4E, High Band Terminal |
| 62144 | Lynx.GX 8E, Low Band Terminal |
| 62145 | Lynx.GX 8E, High Band Terminal |
| ACC-GX-RF-2 | Optional RF Unit Outdoor Mounting Kit |
| 201-31075-1 | Optional AC Adapter 110/220 VAC with cable and connector |

SHIPPING CONFIGURATION

Lynx.GX 4E or 8E IDU (Indoor Unit)
Lynx.GX Low Band or High Band RF Unit
ACC-GX-IF-1 IDU Mounting Kit
ACC-GX-RF-1 RF Unit Indoor Mounting Kit
(includes 12" IDU to RFU cable)
Quick Install Guide
CD-User Documentation

¹ Output power is specified at zero attenuation

⁴ RF Unit installed outdoors with 8ft. parabolic antenna, 99.999% one-way RF link availability, average climate/terrain, no multipath reflection.