

Q-Series Portable Satellite Antenna Terminals (PSATs)

Extremely Rapid Deployment

Overview

News crews, industrial workers and first responders require durable, portable terminals for quick connectivity in remote locations. Gilat DataPath developed the Q-Series PSATs to provide reliable, high-performance satellite communications when your operation calls for connectivity on the go. The terminals ensure critical communications channels are maintained in the harshest, most remote locations. The systems are lightweight, easy to use, highly transportable and quick to set up and stow.

The QCT90 antenna system is available in a standard base configuration or it can be customized with pre-bundled or customer-furnished components, including:

- Commercially available BUCs/LNBs
- Ku-band or commercial Ka-band pre-bundled transceivers
Inmarsat GX kit
- Pointing kit
- ODUs holding modems attached to the backside of the reflector

The Q90 features an open-ended approach to VSATs where preferred configuration can be decided by customers and integrators.

Packs into One Airline Checkable Case

Easy transport and deployment.

Field-Proven & Tested

Withstands wind-drag, rain, dust, and other environmental hazards

Simplified Two-Part Design

Establish connectivity in less than five minutes with minimal training

Modular & Highly Configurable

Scalable through shareable replacement components to suit changing needs for lower total cost of ownership



Technical Specifications

| Model | Q90 | | | | | | Q90-GX |
|---|--|-----------------------|-----------------------|-----------------------|-----------------|-----------------|--|
| Transceiver Config. (Polarization acronym) | Ku-6W LCrP | Ku-12W LCrP | Ku-25W LCrP | Ku-55W LCrP | Com Ka-8W CCrP | Com Ka-10W CCrP | Com Ka-5W GX CCrP |
| Reflector | 0.9 x 0.59 m (35.4 x 23.2 in) | | | | | | |
| Azimuth Range | 360°, find adjust ±20° | | | | | | |
| Elevation Range | 10° to 90° (on leveled surface, but can be tilted for lower elevation angles) | | | | | | |
| Operating Temperature | -32°C to +55°C (-26°F to +131°F) | | | | | | |
| Storage Temperature | -40°C to +71°C (-40°F to +159°F) | | | | | | |
| Operational Wind | Max 72 km/h (45 mph) with integrated windstays | | | | | | |
| Power | CFE power supply for BUC/LNB or via IFL from modem (if supported) | | | | | | 90-264VAC, 47-6 Hz |
| Transmit Freq. (GHz) | 13.75-14.5 | 13.75-14.5 | 13.75-14.5 | 13.75-14.5 | 29.0-30.0 | 29.0-30.0 | 29.0-30.0 |
| Transmit LO (GHz) | 12.8 | 12.8/13.05 | 12.8/13.05 | 12.8/13.05 | 28.05 | 28.05 | 28.05 |
| Receive Freq. (GHz) | 10.7-12.75 | 10.7-12.75 | 10.7-12.75 | 10.7-12.75 | 19.2-20.2 | 19.2-20.2 | 19.2-20.2 |
| Receive LO (GHz) | 9.75/10.6 mech switch | 9.75/10.6 mech switch | 9.75/10.6 mech switch | 9.75/10.6 mech switch | 18.25 | 18.25 | 18.25 |
| EIRP, Min @ midband (dBW) | 44.6 @PLin30 | 47.8 @PLin30 | 51.6 @PLin26 | 55 @PLin30 | 52.9 @PLin20 | 53.9 @PLin20 | 51.0 @PLin20 |
| G/T @ 20° elevation (dB/K) | 17.5 (typ) | 17.5 (typ) | 17.5 (typ) | 17.5 (typ) | 18.2 (typ) | 18.2 (typ) | 17.4 (min) 18.2 (typ) |
| Typ Power (W AC) w/o options | 27 | 65 | 82 | 217 | 74 | 84 | 250 |
| Terminal Weight (kg) | 12.8 (28.2 lbs) | 13.8 (30.3 lbs) | 13.6 (29.9 lbs) | 14 (30.8 lbs) | 13.1 (28.8 lbs) | 13.1 (28.8 lbs) | 20 (44.1 lbs) |
| Packaged in Backpack 84 x 44 x 34 cm (kg) | 17 (37 lbs) | 18 (39 lbs) | 17 (38 lbs) | 18 (39 lbs) | 17 (37 lbs) | 17 (37 lbs) | 24 (52 lbs) |
| Packaged in Hard Case 95 x 51 x 48 cm (kg) | 24 (53 lbs) | 25 (55 lbs) | 25 (55 lbs) | 25 (55 lbs) | 24 (53 lbs) | 24 (53 lbs) | 31 (69 lbs) |
| Antenna Pointing | manual pointing through external compass, inclinometer and/or mobile phone | | | | | | Assisted manual pointing with guidance LEDs or web-based GUI |
| Baseband Kits | see options below for suggested modem ODUs | | | | | | PIM module (integrated iDirect CX751) |
| Available Options: | Options Description | | | | | | |
| Sat Router SRM200 | iDirect 950mp based ODU attached to reflector backside, weight 4.5 kg, power 55W | | | | | | N/A |
| Evolution X1 Outdoor | iDirect X1 based ODU attached to reflector backside, weight 2.3 kg | | | | | | N/A |
| HT2600 Series | Hughes HT2600 ODU attached to the reflector backside, weight 4.08 kg | | | | | | N/A |
| H-plus ODU | Comtech H-plus ODU attached to the reflector backside, weight 11.6 kg | | | | | | N/A |

Notes:

Polarization acronyms: CCrP - Circular Cross Pol, CCoP - Circular Co Pol, LCrP - Linear Cross Pol, LCoP - Linear Co Pol

PLin30 defined as spectral re-growth (OQPSK, 1 symbol rate offset) -30dBc, PLin26 as -26dBc, etc.

P1dB is only used as GaAs designs and cannot be measured for GaN designs (where spectral re-growth is used as a linearity metric).

CFE = Customer Furnished Equipment