

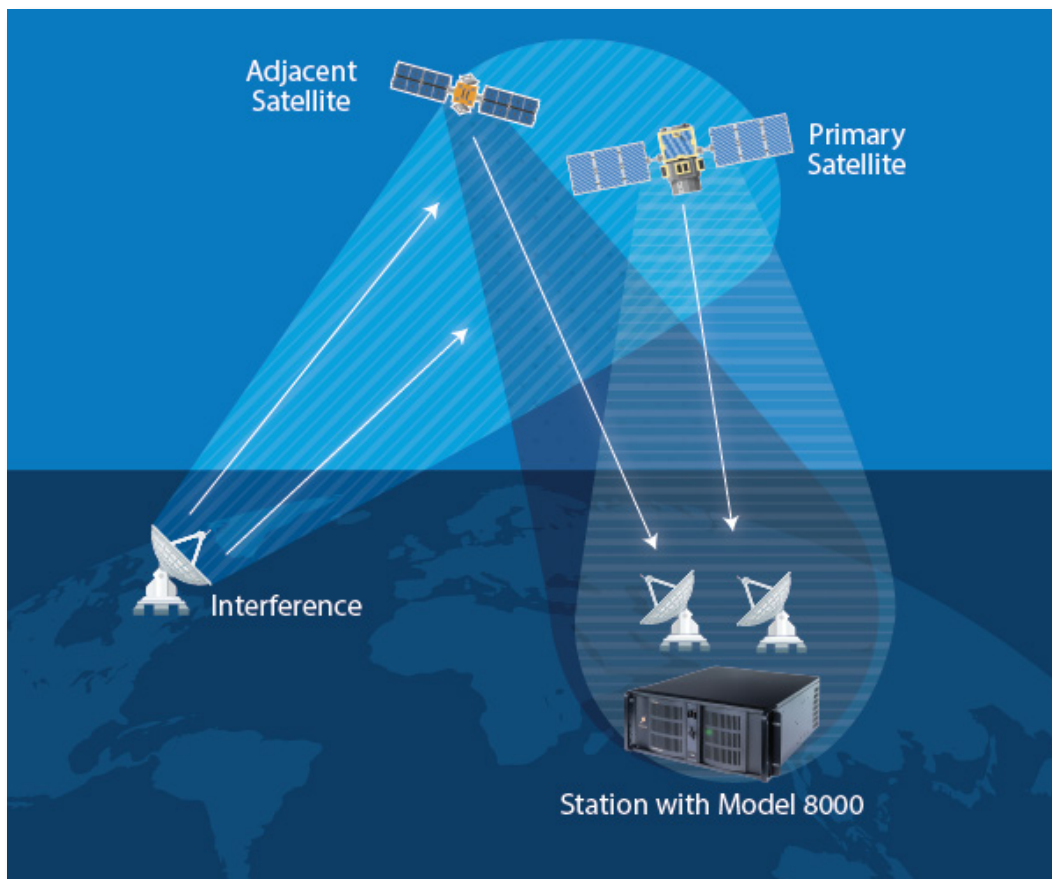
# Geolocation

The iDirect Government Glowlink Model 8000 interference detection and geolocation system allows operators to view real-time spectra for the detection and characterization of interference. The Model 8000 seamlessly transitions from detecting the interference to geolocating the interference with the click of a button.

The Model 8000 geolocates transmit terminals quickly and accurately. It locates the interference by taking advantage of the weak replica of the signal that an adjacent satellite will receive. Downlinks for the primary and adjacent satellite are acquired and analyzed to extract precision time difference and/or frequency difference information used for locating the interference signal.

## Key Features

- ◆ Built-in interference detection and spectrum monitoring in a single enclosure
- ◆ Geolocate interference in four guided steps
- ◆ Unparalleled geolocation accuracy with either a single or multiple references
- ◆ Centralized database for the storing of carrier monitoring and geolocation system parameters, measurement results and additional data for analysis
- ◆ Sig-Catcher™ for the acquisition and geolocation of fast-sweeping and frequency hopping signals
- ◆ Advanced Error Correction (AEC™) for errors in satellite ephemeris
- ◆ Automated adjacent satellite selection
- ◆ Effective across multiple satellite bands (L, C, X, Ku and Ka)



# Glowlink Model 8000



Model 8000

## Measurement Accuracy

<b>Carrier Power</b>	+/- 0.2 dB <sup>1</sup>
<b>Center Frequency</b>	+/- 0.75% of BW <sup>2</sup>
<b>Carrier Frequency</b>	+/- 0.05% of BW + 100 Hz <sup>1</sup>
<b>Carrier Bandwidth</b>	+/- 0.5% <sup>1</sup>
<b>C/N, C/kT</b>	+/- 0.25 dB <sup>1</sup>

## Characterization/Detection Capabilities

<b>Modulation Type</b>	Identifies PSK, APSK, QAM and other modulations
<b>Symbol Rate</b>	Measured symbol rate of digital carrier
<b>Carrier Frequency</b>	Carrier frequency or digital carrier
<b>Transmission Rate</b>	Bit rate of digital carrier
<b>Es/No</b>	Measured from demodulated carrier
<b>Eb/No</b>	Referenced to demodulator
<b>FEC</b>	Convolutional (IESS-308, 309, 310, DVB-S), LDPC (DVB-S2) and others

## RF Characteristics (Each Channel)

<b>RF Interface</b>	SMA, 950-2150 MHz, 0 dBm (max), Full Bandwidth Input Power -65 dBm/-5 dBm, 50Ω
<b>Instantaneous Bandwidth</b>	36 MHz
<b>Resolution Bandwidth</b>	97.66 kHz to 12 Hz
<b>Dynamic range</b>	115 dB nominal
<b>Minimum Carrier Level</b>	1 kHz carrier BW: -85 dBm, 10 kHz carrier BW: -75 dBm, 100 kHz carrier BW: -65 dBm, 1 MHz carrier BW: -55 dBm, 10 MHz carrier BW: -45 dBm

## Data Interface

<b>Network</b>	Ethernet (RJ-45)
<b>I/O</b>	USB, Serial

## Mechanical/Environmental

<b>Size</b>	W 19.00 in x D 21.00 in x H 7.00 in (W 48.26 cm x D 53.34 cm x H 17.78 cm)
<b>Weight</b>	39.00 lbs (17.69 kg)
<b>Temperature</b>	Operational 57.2° to 107.6°F (14° to 42°C)
<b>Humidity</b>	30 to 90%, at 95°F (35°C) non-condensing
<b>Input Voltage</b>	100–240 VAC, 50–60Hz

## Geolocation Bundle Includes

<b>Monitoring</b>	Audible and Visual Alarm, Fine resolutions, 16APSK/32APSK Recognition and Characterization, DVB/DVB-S2 Analysis Package
<b>Geolocation</b>	G-Wiz™ Guided Geolocation, Advanced Error Correction (AEC™), SigCatcher™ Signal Acquisition, Automated Frequency Offset Measurement, TDOA/FDOA Contour Maps, Geolocation Performance Estimator, Ephemeris Propagator, Multiple Overlapping Signal Exclusion
<b>System Functionality</b>	Interfacility link Calibration, Signal Recorder, Web-Server™, Email Notification, User Account Manager
<b>Hardware</b>	Database Server, GL950 8-Port RF Switch, Removable System Drive, Hot Swappable Power Supply, Workstation with Geolocation Client

<sup>1</sup> Accuracy measured with C/N = 10 dB

<sup>2</sup> Typical for C/N = 14 dB