



# Iridium® GPS Satellite Repeater

Versatile Solution For Satellite Communications Indoors  
Transmits and Receives Iridium® Signals with Antennae



## DX1

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### Iridium Satellite Repeater Kit Comprises:

- 1x Coaxial Iridium Satellite Repeater
- 4 x GPS Iridium Antennae
- 4 x 10m Coax Cables\*
- 1 x Power Supply



### BESPOKE LENGTH COAX CABLES.

We can supply bespoke length cables to your needs.



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\*Up to 30m coax cables can be supplied if needed. Giving upto 60m range from external antennae.



Iridium® repeaters are generally used in the following types of locations:-

- Aircraft Hangars
- Military Bunkers
- Underground Facilities
- Operation Rooms
- Ships / Submarines
- Oil Rigs
- Large Buildings
- Command Centres
- Tunnels
- Fire / Police Stations
- Coast Guard / Marine Rescue

Use with Iridium® Satellite Phones, and SBD (Short Burst Data) Devices.

Supports use of multiple handsets.  
Up to 60m from external to internal Antennas.  
Coverage up to 10m around internal Antennae.\*

Adjustable UL & DL Gain up to 75dB.  
Supplied with either Internal Antennae or Radiating Coax.

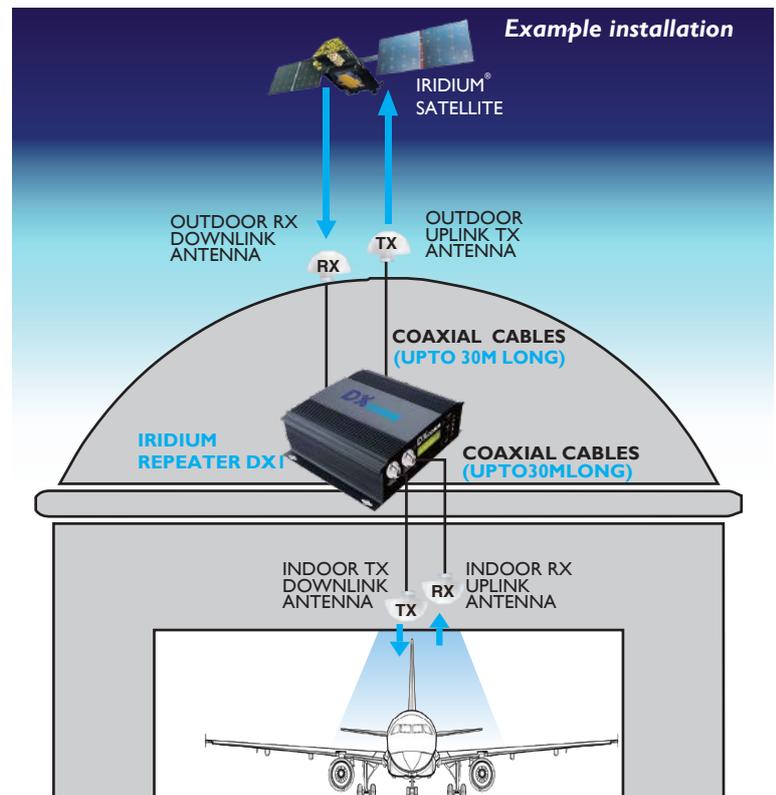
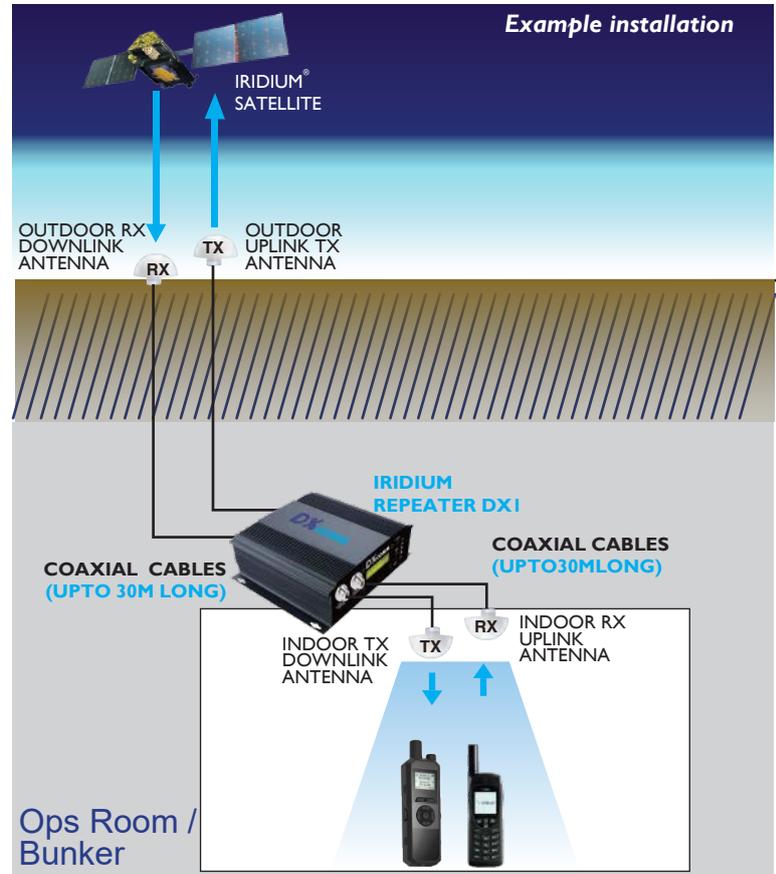
Portable size at just 235x80x250mm, & 1.5kg.

Optional Optical Fibre version coming soon.

Covers GPS LI, Galileo, Glonass, GNSS-2 & Iridium

**BESPOKE LENGTH COAX AVAILABLE**  
We can supply bespoke length cables. Eg: 2x10m with 2x20m OR 2x15m with 2x30m.

*\*Indoor antenna range depends on a number of factors, such as wall material and location, interference sources, room furnishings, antenna placement, and outdoor satellite signal strength*



**OPTIONAL: RF ABSORBING KITS AVAILABLE FOR USE WHEN INTERNAL ANTENNAS ARE IN CLOSE PROXIMITY**  
(ask for details)





GENERAL	
Frequency range	1575MHz – 1625MHz (Downlink, GPS L1, GLONASS, GNSS-2, GALILEO + Iridium band) 1615MHz – 1625MHz (Uplink, Iridium)
Out-of-band attenuation	37dB
Antenna impedance	50 Ω (N-J connector)
RF Input/output surge protection	2000 A, 8/20 μs, 10 impulses
Recommend additional lightning protection	Gas discharge type
Operating temperature range	-30°C to +55°C
Thermal shutdown	85°C (system internal temperature)
Power supply requirement	13.5V / 3A DC nominal (9V – 32V operating voltage)
Fuse	2A, self-resetting/non-replaceable
Current drain (approximate)	1.0A @ 13.5V
Power consumption	14W
Dimensions of Repeater WHD	235x 80 x 250mm
Weight of Repeater	1.5 KG
UPLINK	
Total gain	Uplink: 45-75dB (3dB increments)
Working output power	1.91W (+32.8dBm)
Rated peak output power	+49.5 dBm
Noise level	< -145dBm/Hz
Noise figure	0.34dB
Spurious emissions	-95dBm
DOWNLINK	
Total gain	Downlink: 25-55dB (3dB increments)
Working output power	1.91W (+32.8dBm)
Rated peak output power	+49.5 dBm
Noise level	< -145dBm/Hz
Noise figure	0.35dB
Spurious emissions	-95dBm
Uplink/downlink isolation	-84dB

### Technical features

- High gain, high efficiency GPS antennae
- Thermal monitoring and safety shutdown
- Integrated fuse and reverse polarity protection
- Surge protection on inputs and outputs
- Outputs protected against impedance mismatch/antenna disconnection
- Extremely low-noise input stage
- 2W continuous output power

