



ICOM

Icom Inc.

Next Generation IC-SAT100M

Icom Inc.

Outline

- **About Iridium**
- **Equipment**
- **First in the market**
- **Main Target**
- **What is IC-SAT100M**
- **IC-SAT100M Solution**
 - In Vehicle
 - In Building
 - **Connecting Other devices**
- **Optional Accessories**
- **Comparison**

Icom Satellite PTT Solution

Satellite PTT

➤ **IC-SAT100**
Handy Terminal



➤ **IC-SAT100M**
Mobile

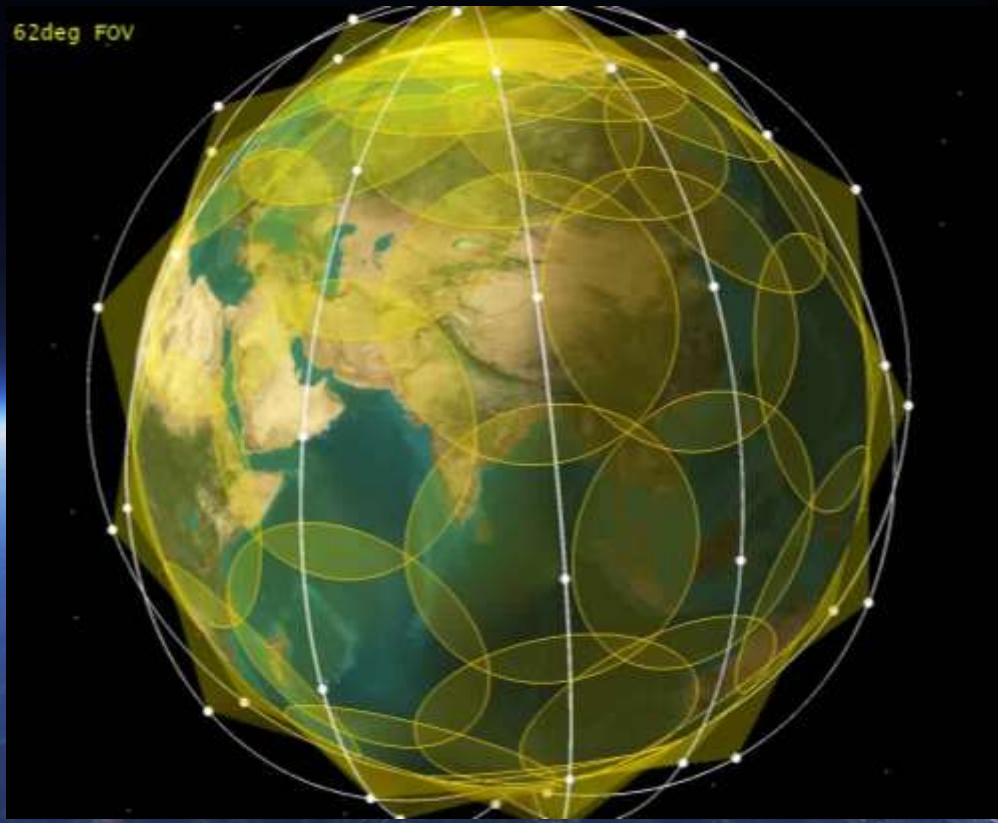


About Iridium

The background of the slide is a high-angle, wide-area photograph of Earth from space. The top of the image shows the dark blue of the vacuum of space, with a thin, bright blue line representing the Earth's atmosphere. Below this, the Earth's surface is visible, showing a vast expanse of blue oceans and dark, rugged mountain ranges. The lighting is soft, suggesting a sunrise or sunset, with a pale blue glow on the horizon.



Iridium Satellite Covers Entire Earth



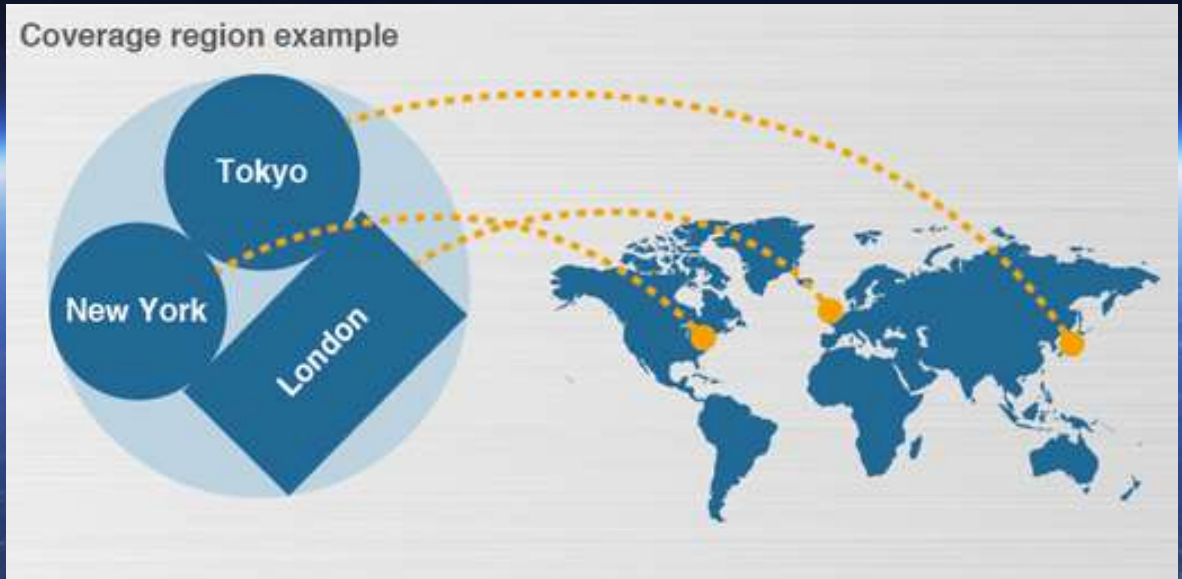
75 satellites
(66 operational and 9 in-orbit spares)

“STEP UP and GROW” with Icom

All specifications are subject to change without notice.

How do I assign a coverage area?

The coverage area can be split into different coverage regions, using circles, squares, and rectangles. For example, you can assign coverage areas to Tokyo, New York and London.



Low Latency Realized by Iridium LEO Satellites

*LEO = Low Earth Orbit



GEO vs. LEO

GEO: Geosynchronous Equatorial Orbit

- Affected by whether, rain, cloud, snow..
- Requires large antenna
- Communication delay
- Needs to face south
- when communicating
- Does not cover both poles

LEO: Low Earth Orbit (IC-SAT100M)

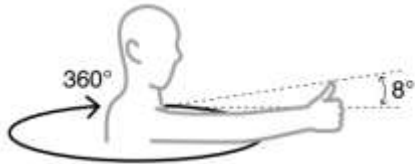
- Fewer delay than GEO
- Stronger signal than GEO
- No need to face south
- Portable antenna

Nearby obstructions can temporarily impede your ability to communicate until satellites move into view.
Avoid use in forested areas, near tall buildings, or in mountain valleys if possible.

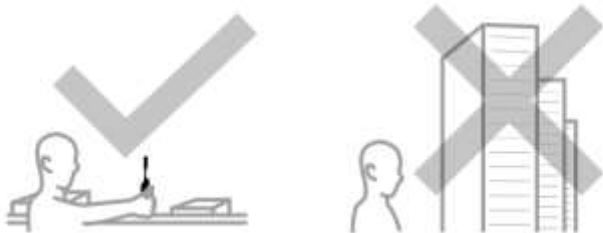


Please follow below instruction in order to avoid communication fail when using IC-SAT100

Extend your arm horizontally, and raise your thumb
Make sure that there are no obstacles higher than about 8 degrees.



① Receiving and transmitting may fail, depending on the satellite positions or nearby obstacles.



Hold the transceiver with its antenna straight up
and pointing to the sky
When you transmit and hold the transceiver
in your hand, always keep it in front of your face



① When using the transceiver and the chest harness, we highly recommend that you use with our speaker microphone.



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IC-SAT100M

Equipment

Mobile



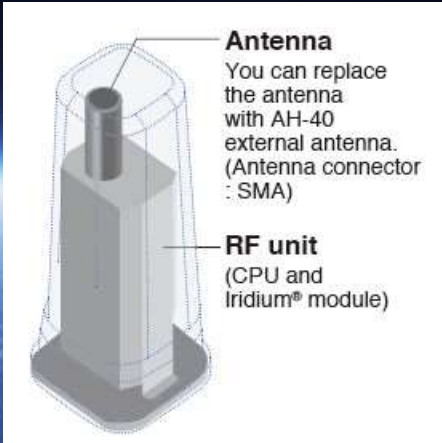
Handmic



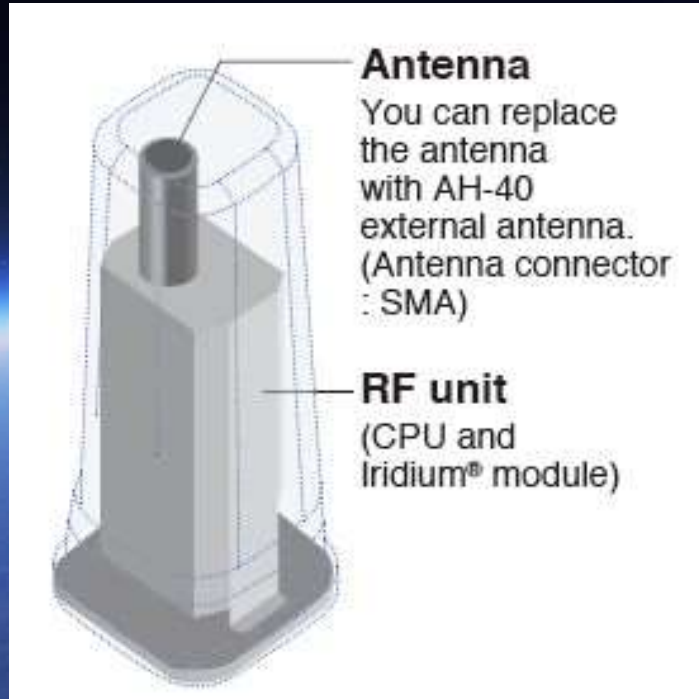
Outside Antenna



RF Unit Inside



RF Unit in Outside Antenna



<CPU and Iridium Module inside of antenna>
If you place main unit inside of vehicle or building, coaxial cable is required..

Since unit is inside of antenna,,

- No coaxial cable required
 - Extending with just LAN cable
 - Less sensitivity loss
- ex) No need to worry less sensitivity of wiring in a vehicle.

First in the Market

Established Market Superiority

- IC-SAT100M is the First Iridium Satellite PTT Mobile
- Using LEO, faster communication than GEO
- Allows In Vehicle, In-building use
- Allows talk groups
- Easy installation at lower cost for in-building use

First in the Market

MODEL	IC-SAT100M	EXPLORER 325	SAILOR430 0	Thuraya IP Voyager	MSAT-G2
Communication	IP PTT	Phone, Internet..	Data Only	Data Only	IP PTT
Network	Iridium (LEO) Only IC-SAT100M	Iridium (LEO)	Inmarsat (GEO)	Thuraya (GEO)	MSAT (GEO) -Long Altitude -Large Antenna

What is IC-SAT100M?

Using Iridium NEXT Network

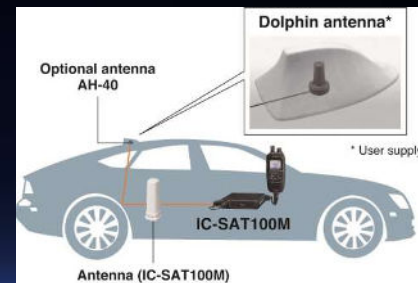
- Using Iridium Satellite Network, communicate anywhere in the world including poles
- Realizing communication in remote, rural areas
- Realizing calls when network infrastructure is down, such as when natural disasters.

In-Vehicle Use

- Communicating inside of cars, military vehicle, vessel and etc..

In-Building Use

- Communicating inside of building such as office building, military base, oil plant.



Function

- Voice Recording function
- Built-in Bluetooth® capability
- Multiple language display
(English, Chinese, French, Japanese, and Spanish)
- Integrated GPS receiver shows received signal position information on the display
- 1500 mW powerful audio output
- Short Data Message
- AES 256-bit encryption*2

Military



Vessel



Coast Guard



IC-SAT100M
Main Users

Mining



Boarder Security



Disaster Response
Headquarter

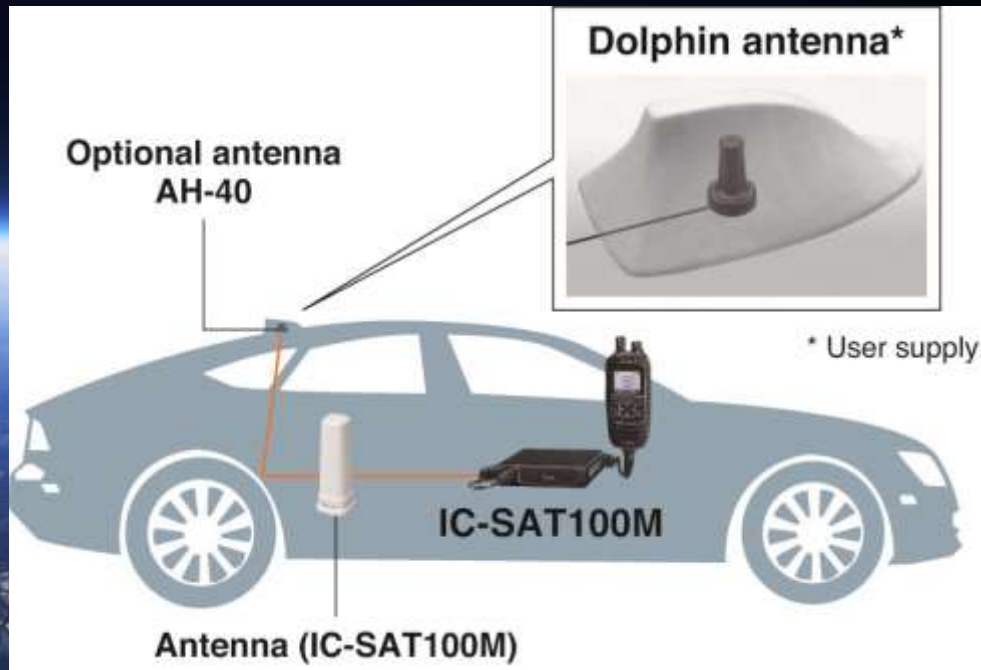


How to install IC-SAT100M to Vehicle

1. Install black box inside near driver seat
2. Install Antenna (RF Unit) inside
3. Set up optional antenna AH-40 outside
4. Optional cable OPC-2422 allows 5m extension of AH-40.

AH-40 is much smaller and safe to set up outside

➤ Avoid outside damage such as high temperature by optional antenna AH-40.



How to install IC-SAT100M to Vehicle

3. Set up optional antenna AH-40 outside



How to set up AH-40 antenna?

1. Remove cover



2. Remove Antenna



3. Insert AH-40 cable to antenna cover



4. Equip AH-40 to RF Unit



5. Equip cover, DONE

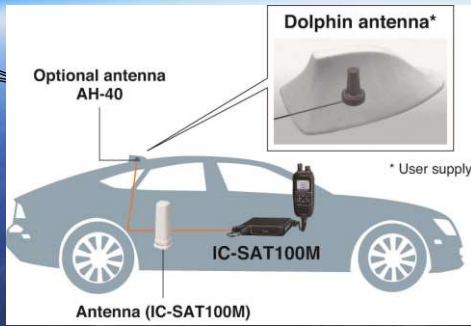


IC-SAT100M Solution

Case 1 Inside of Vehicles



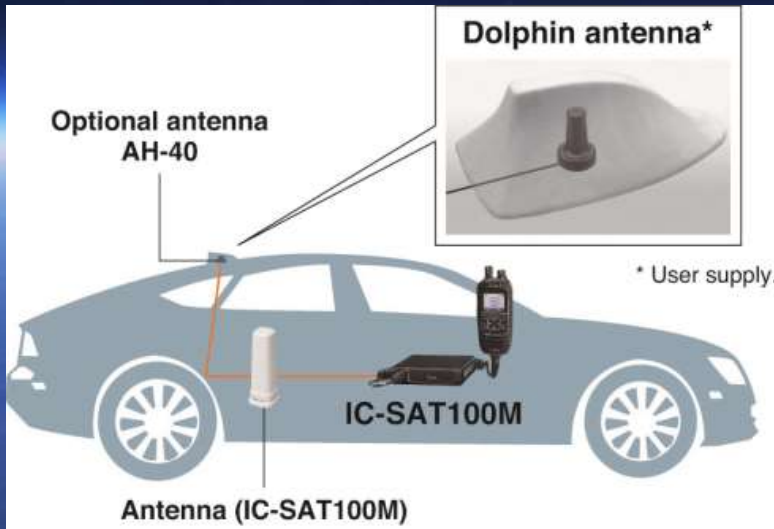
IC-SAT100M



Case 1 Inside of Vehicles

1. Easy Installation

- Power supplied through Vehicle ACC
- Compatible with 12V DC & 28V



*Image

- No need to install mobile power supplier
- Installing to military vehicle with 28V
- LAN cable allows less sensitivity

Case 1 Inside of Vehicles

Hands Free Operation

- Bluetooth Headset(optional) VS-3

VS-3(Bluetooth Headset)



- Communicating without using handmic
- Easy to use while driving
- *Please check local traffic law

Case 1 Inside of Vehicles

Speaker Function

- Loud Speaker SP-30

SP-30(Loud Speaker)



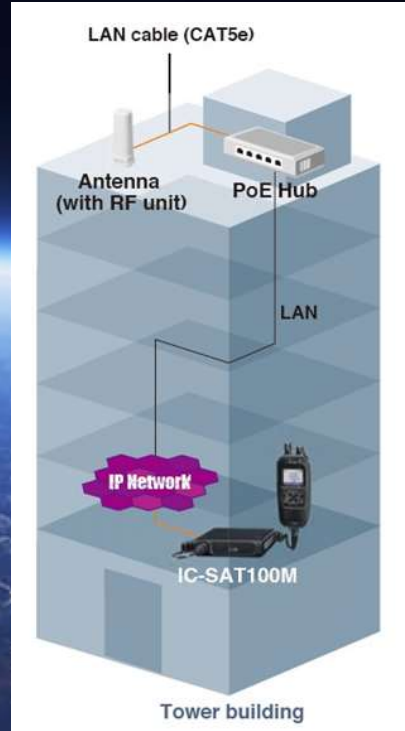
- SP-30 used as Public Address
- Used in emergency cases such as natural disasters



Case 2 Inside of Building



IC-SAT100



Case 2 Inside of Building

Multiple Purposes

- IC-SAT100M can be used on multiple occasions.

Disaster Response Headquarter



- Hurricane, Flood, Earthquake
- Get information from outside using IC-SAT100

Mining



- Head office can communicate with Employees working outside

Case 2 Inside of Building



Easy Installation

- Connecting LAN cable
- Power through POE
- 100m extension → 400m w/ hub

Much Lighter and reasonable than coaxial cable

-Flexible wiring work without any sensitivity loss

-Power can be supplied through POE, LAN cable from main unit to antenna (with RF unit)

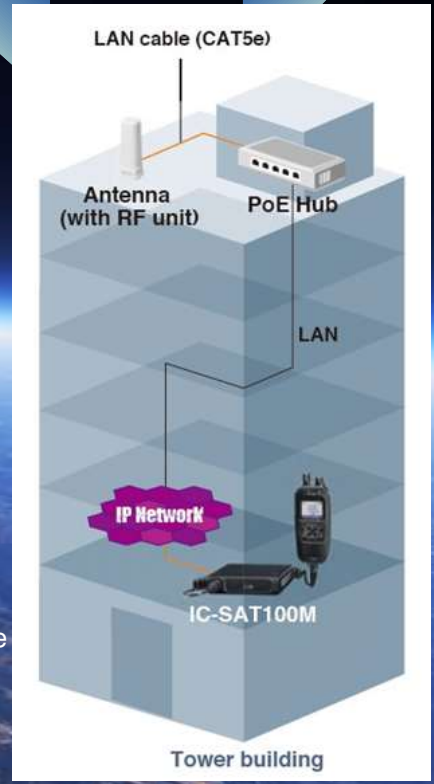
-Extending cable maximum 100m Allowing to lead cable from floor to rooftop. PoE Hub allows maximum 400m extension.



Leaky Coaxial Cable F-8D-LCX
100m @\$3,400



CAT5e LAN Cable for outside use
100M @\$140



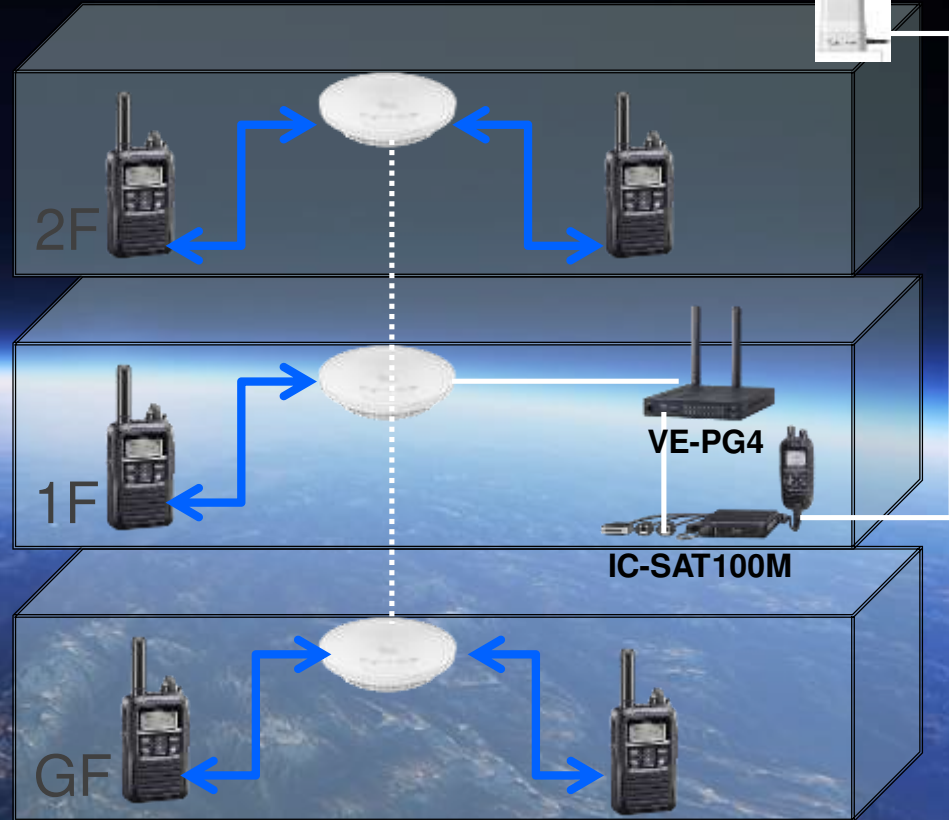
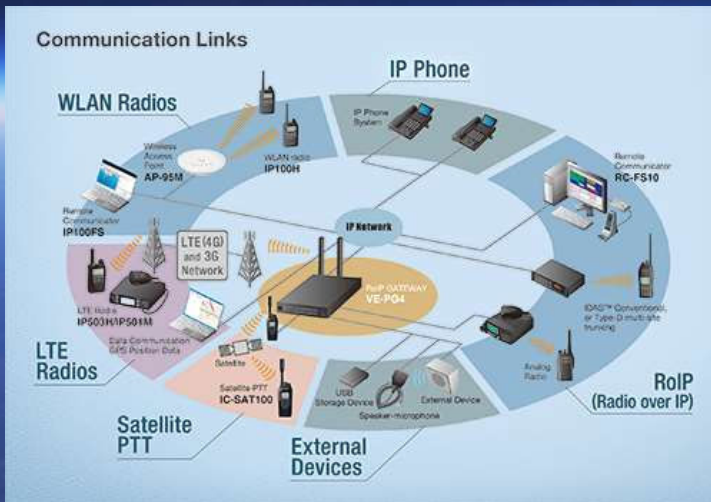
Case 3 Connecting with Other Devices



Case 3 Connecting with Other Devices

Icom RoIP Gateway

- Icom RoP VE-PG4 enables to connect with any Icom devices
- This system realizes satellite IC-SAT100M connects with other radios such as IP, LTE, Digital and Analogue radios.
- This system has so much potential to solve your current problems or to suite to your situation



Optional Accessories



**ANTENNA
AH-40**
For in-vehicle use. 1.5 m,
4.9 ft.



**EXTERNAL SPEAKER
SP-30**



**EXTERNAL SPEAKERS
SP-35 / SP-35L**
2 m, 6.5 ft / 6 m, 19.6 ft


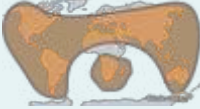





**HEADSET
VS-3**
Bluetooth® headset

**CABLE
OPC-2429**
Extension cable for use with
supplied speaker-microphone
(2 m, 6.5 ft)

**COAXIAL CABLE
OPC-2422**
For AH-40
5 m, 16.4 ft

Comparison

	IC-SAT100 IC-SAT100M	Inmarsat IsatPhone2	Globalstar GSp-1700	Thraya X5-Touch	IRIDIUM EXTEME PTT
Network	Iridium	Inmarsat	Globalstar	Thuraya	Iridium
Height	780km(484mi)	36,000km(22,369mi)	36,000km(22,369mi)	36,000km(22,369mi)	780km(484mi)
Coverage					
Durability	IP67	IP65	IPX7	IP67	IP65
In Building	✓IC-ST100M	×	×	×	×
Bluetooth	✓	✓	×	✓	×
Talk Groups	15 Talk Groups Maximum	One to One Only	One to One Only	One to One Only	One to One Only

Market Information

Release on July 2020

Realize Global Communication with Icom IC-SAT100M

Thank you for your attention