CATALOG OF PRODUCTS

CraftCode AG and TechStar SatCom Ltd. have joined forces to offer a unique blend of advanced IT solutions and cutting-edge satellite technologies.

Together, we bring complementary strengths, a shared commitment to innovation, and decades of combined experience to deliver integrated, future-ready solutions.

CRAFTCODE AG

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ABOUT US

CraftCode AG

Founded in 1989 and headquartered in Switzerland, CraftCode AG is a trusted provider of high-quality IT solutions. With a strong focus on innovation, efficiency, and customer satisfaction, we support businesses across sectors with tailor-made digital solutions that enhance operations and enable growth.

Our Expertise spans:

- IT Business solutions
- Software testing services
- Tech resource sharing and consultancy

We are committed to delivering reliable, secure, and scalable systems that streamline business processes and empower digital transformation.

TechStar SatCom Ltd.

Headquartered in the United Kingdom, with a state-of-the-art manufacturing facility in the United Arab Emirates, TechStar SatCom Ltd. specializes in the design, development, and production of advanced satellite systems. We serve commercial, governmental, and defense clients with high-performance and mission-critical space technology.

Our Core Capabilities include:

- Custom satellite system engineering
- End-to-end manufacturing solutions
- Integrated technologies supporting global connectivity

TechStar SatCom's integrated approach combines engineering excellence with world-class production standards, supporting innovation in space-based infrastructure and communications.

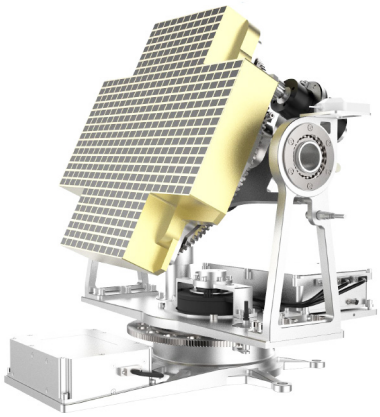
Together, CraftCode AG and TechStar SatCom Ltd. offer a powerful partnership - blending IT software and embedded systems excellence with advanced aerospace engineering - to deliver innovative solutions aligned with the goals of the tendering authority.

CRAFTCODE AG

TECHSTAR SATCOM

TS-AR280GA
Ku Band Fixed-wing Airborne VSAT

Automatically collect and output carrier position and attitude information
Storage of more than 10 satellite position parameter
Terminal One-key start, antenna tracking the satellite automatically
Polarization direction automatically adjust
Power-down memory and protection
Device detection and status checking
Power-on self test and fault alarming



MODEL
TS-AR280GA

Dimension
Φ390mm×360mm

Weight
≤13kg

Polarization
Linear VP/HP

Frequency Range
RX：10.7～12.75GHz TX：13.75～14.5GHz

Receive G/T (Elevation 10°)
7.4 dB/K @ 12.5GHz (Normal temperature@ 27℃,
LNB noise factor @0.9 dB，Radome excluded）

Transmit EIRP (dBW)
43.1dBW @14.25GHz (40W BUC，Radome excluded)

Cross Pol Isolation
≥30dB

RF Input(Tx)
13.75～14.5GHz, SMA 50Ω

RF Output(Rx)
950-2150MHz, TNC 50Ω

Power Consumption
90W（Average） 40W BUC excluded

Azimuth Range
360°continuous rotation

Elevation Range
0°~ 90°(80°Performance reach the standard)

Az/El Velocity: Acceleration
＞60°/s; >100°/s²

Tracking Accuracy
≤0.2° RMS

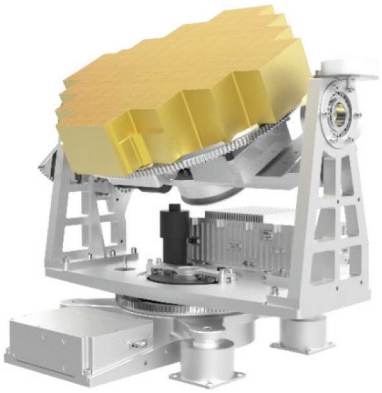
Input Power
DC18～32V

Operating Temperature
-45℃～70℃

Altitude
16800 Meters (55000Feet)

TS-AR300GA
Ku Band Helicopter Airborne Antenna

Automatically collect and output carrier position and attitude information
Storage of more than 10 satellite position parameter
Terminal One-key start, antenna tracking the satellite automatically
Polarization direction automatically adjust
Power-down memory and protection
Device detection and status checking
Power-on self test and fault alarming



MODEL
TS-AR300GA

Dimension
Φ500mm×465mm

Weight
≤18kg

Polarization
Linear VP/HP

Frequency Range
RX：10.7～12.75GHz TX：13.75～14.5GHz

Receive G/T (Elevation 10°)
8.44 dB/K @ 12.5GHz (Normal temperature@ 27°C,
LNB noise factor, @0.8 dB, Radome excluded)

Transmit EIRP (dBW)
46.3dBW @14.25GHz (40W BUC, Radome excluded)

Cross Pol Isolation
≥30dB

RF Input(Tx)
950-1750MHz, TNC 50Ω

RF Output(Rx)
950-RF Output(Rx) 2150MHz, TNC 50Ω

Power Consumption
260W（Average） 40W BUC included

Azimuth Range
360°continuous rotation

Elevation Range
-10°~ 90°(80°Performance reach the standard)

Az/El Velocity: Acceleration
＞60°/s; >100°/s²

Tracking Accuracy
≤0.2° RMS

Input Power
DC18～32V

Operating Temperature
-45°~ 70°

Altitude
16800 Meters (55000Feet)

TS-AR400GA
Ku Band Helicopter Airborne Antenna

Automatically collect and output carrier position and attitude information
Storage of more than 10 satellite position parameter
Terminal One-key start, antenna tracking the satellite automatically
Polarization direction automatically adjust
Power-down memory and protection
Device detection and status checking
Power-on self test and fault alarming

MODEL
TS-AR400GA

Dimension
Φ530mm×390mm

Weight
≤12.5kg

Polarization
Linear VP/HP

Frequency Range
RX：10.70～12.75GHz　TX：13.75～14.5GHz

Receive G/T (Elevation 10°)
10.1dB/K (Normal temperature@ 27℃,
LNB noise factor @0.8 dB, Radome excluded）

Transmit EIRP (dBW)
46.5dBW (40W BUC，Radome excluded)

Cross Pol Isolation
≥30dB

Gain(Rx)
31.0dB@12.5GHz

Gain(Tx)
32.3dB@14.25GHz

Power Consumption
100W（BUC excluded）

Azimuth Range
360°continuous rotation

Elevation Range
-8°~ 90

Az/El Velocity: Acceleration
＞60°/s; >100°/s²

Tracking Accuracy
≤0.2° R.M.S

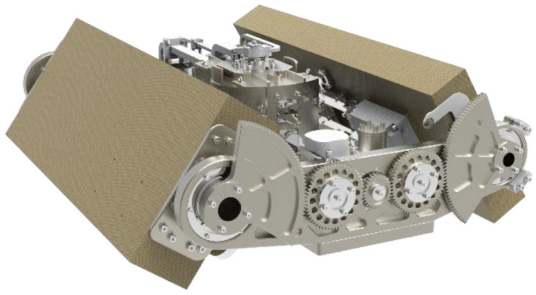
Input Power
DC18～32V

Operating Temperature
-40℃～75℃

Altitude
16800 Meters (55000Feet)

TS-AR450CA
Ka Band Civil Aviation Airborne VSAT

Automatically collect and output carrier position and attitude information
Storage of more than 10 satellite position parameter
Terminal One-key start, antenna tracking the satellite automatically
Polarization direction automatically adjust
Power-down memory and protection
Device detection and status checking
Power-on self test and fault alarming



MODEL
TS-AR450CA-Ka&Ku

Dimension
Φ260mm×820mm×652mm

Weight
59.5kg

Polarization
Linear / Circular

Frequency Range
RX：10.95～12.75GHz　TX：13.75～14.50GHz
RX：18.70～20.20GHz　TX：29.00～30.00GHz

Receive G/T
12.7dB/K @ 12.75GHz
13.7 dB/K @ 20.2GHz

Transmit EIRP (dBW)
46.5dBW (40W BUC, Radome excluded)

Azimuth Range
360°continuous rotation

Elevation Range
0°~ 90

Az/El Velocity: Acceleration
＞60°/s; >200°/s²

Tracking Accuracy
≤0.2° R.M.S

Input Power
DC 28V

Operating Temperature
-55℃～70℃

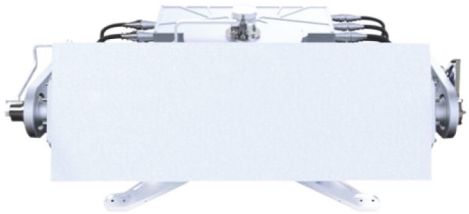
Altitude
16800 Meters (55000Feet)

Environmental requirements
RTCA DO-160G

Design reference standard
ARINC 791-2/RTCA-DO-254/DO-178

TS-AR450CA-Ka
Ka Band Civil Aviation Airborne VSAT

Automatically collect and output carrier position and attitude information
Storage of more than 10 satellite position parameter
Terminal One-key start, antenna tracking the satellite automatically
Polarization direction automatically adjust
Power-down memory and protection
Device detection and status checking
Power-on self test and fault alarming



MODEL
TS-AR450CA-Ka

Dimension
Φ895mm×260mm

Weight
33kg

Polarization
Circular LHCP/RHCP

Frequency Range
RX：18.70～20.20GHz TX：29.00～30.00GHz

Receive G/T
13.5 dB/K @ 20.2GHz

Transmit EIRP (dBW)
47.5dBW @29.5GHz

Axial ratio
≤1.5dB

RF Input(Tx)
29.00～30.00GHz, WR28

RF Output(Rx)
950-RF Output(Rx) 2150MHz, TNC 50Ω

Power Consumption
120W（Average）

Azimuth Range
360°continuous rotation

Elevation Range
0°~ 90°(80°Performance reach the standard)

Az/El Velocity: Acceleration
＞60°/s; >100°/s²

Tracking Accuracy
≤0.2° RMS

Input Power
DC28V

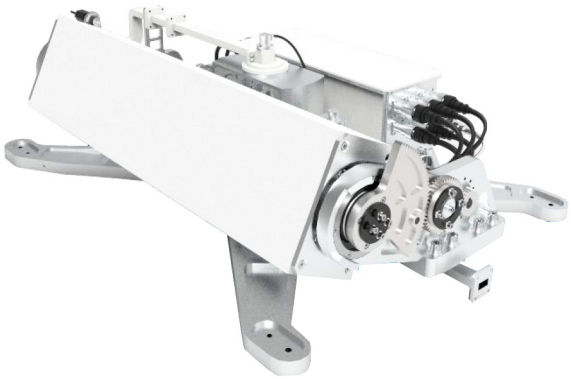
Operating Temperature
RTCA DO-160G

Altitude
16800 Meters (55000Feet)

ARINC 791-P1 ARINC 791-P2
RTCA DO-160G RTCA DO-178

TS-AR450CA-Ku
Ka Band Civil Aviation Airborne VSAT

Automatically collect and output carrier position and attitude information
Storage of more than 10 satellite position parameter
Terminal One-key start, antenna tracking the satellite automatically
Polarization direction automatically adjust
Power-down memory and protection
Device detection and status checking
Power-on self test and fault alarming



MODEL
TS-AR450CA-Ku

Dimension
Φ945mm×260mm

Weight
37kg

Polarization
Linear VP/HP

Frequency Range
RX：10.70～12.75GHz TX：13.75～14.50GHz

Receive G/T (Elevation 10°)
12.1 dB/K @ 12.75GHz

Transmit EIRP (dBW)
48.4dBW @14.25GHz

Cross-Pol Isolation
≥25dB(TYP)

RF Input(Tx)
13.75～14.50GHz, WR62

RF Output(Rx)
950-2150MHz, TNC 50Ω

Power Consumption
120W（Average）

Azimuth Range
360°continuous rotation

Elevation Range
0°~ 90°(80°Performance reach the standard)

Az/El Velocity: Acceleration
＞60°/s; >100°/s²

Tracking Accuracy
≤0.2° RMS

Input Power
DC28V

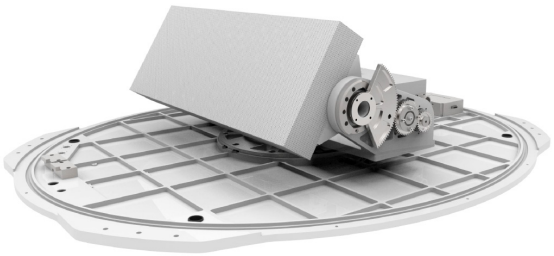
Operating Temperature
-55℃～70℃

Altitude
16800 Meters (55000Feet)

ARINC 791-P1 ARINC 791-P2
RTCA DO-160G RTCA DO-178

TS-AR450GA
Ku Band Fixed-wing Airborne VSAT

Automatically collect and output carrier position and attitude information
Storage of more than 10 satellite position parameter
Terminal One-key start, antenna tracking the satellite automatically
Polarization direction automatically adjust
Power-down memory and protection
Device detection and status checking
Power-on self test and fault alarming



MODEL
TS-AR450GA

Dimension
Φ870mm×315mm

Weight
≤39.5kg

Polarization
Linear VP/HP

Frequency Range
RX：10.95～12.75GHz　TX：13.75～14.5GHz

Receive G/T (Elevation 10°)
11.54 dB/K @ 12.25GHz　(Normal temperature@ 27℃,
LNB noise factor @0.9 dB，Radome excluded）

Transmit EIRP (dBW)
48.5dBW @14.25GHz（40W BUC，Radome excluded)

Cross Pol Isolation
≥30dB

RF Input(Tx)
13.75～14.5GHz, SMA 50Ω

RF Output(Rx)
950-2150MHz, TNC 50Ω

Power Consumption
100W（Average） 40W BUC included

Azimuth Range
360°continuous rotation

Elevation Range
-10°~ 90°(80°Performance reach the standard)

Az/El Velocity: Acceleration
＞60°/s; >100°/s²

Tracking Accuracy
≤0.2° RMS

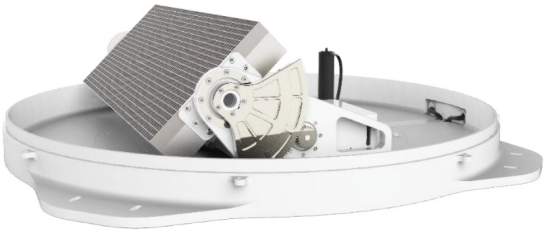
Input Power
DC18～32V

Operating Temperature
-45°~ 70°

Altitude
16800 Meters (55000Feet)

TS-LM450Ka
0.45m Ka Flat Land Mobile Antenna

Ka band flat land mobile antenna
Built in INS and GPS
Smart design
Easy operation
Support auto tracking and manual tracking



MODEL
TS-LM450-ka

Stablization
2 axis stable and 4 axis tracking

Type
Panle waveguide horn array

Dimension
Φ920mm×300mm

Weight
≤40kg （transceiver is not included）

Frequency
RX：18.7～20.20GHz TX：29.46～30.00GHz

Gain
RX：36.6dBi@12.50GHz TX：40.2dBi@14.25GHz

Polarization mode
Circular

Axial ratio
≤ 1.5dB

Rotation range
Azimuth：360°continious　　Elevation：0°～90°
Roll: ～　　Polarizaiton : 0°～270°

Tracking mode
INS Measuremet,Signal tracking

Tracking
≤0.5°RMS

Reacquisition time
Blocking time≤60s，Acquisition time≤5s
blocking time≥300s，Acquisition time≤60s

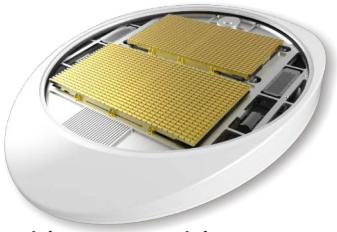
Power input
DC24V±5%，Power consumption≤250W
(included 4W Transceiver)

Control mode
Remote ACU control

Operating Temperature
-40℃～65℃

TS-LM450PA
0.45m Ku Band Phased Array Antenna

Automatically collect and output carrier position and attitude information
Storage of more than 10 satellite position parameter
Terminal One-key start, antenna tracking the satellite automatically
Polarization direction automatically adjust
Power-down memory and protection
Device detection and status checking
Power-on self test and fault alarming



MODEL
TS-LM450PA

Stablization
Azimuth axis stability and tracking, gear drive

Antenna Type
Electromechanical phased array antenna

Dimension
1200×900×120mm

Weight
37kg

Frequency
RX：18.7～20.20GHz TX：29.46～30.00GHz

Gain
RX：12.25～12.75GHz TX：14.0～14.5GHz
TX：34.7dBi （90°) 31.2dBi（30°)

G/T
8.0～11.5dB/K（without Radome)

EIRP
47～50.5dBW （BUC 48W)

Polarization
Arbitrary Linear

Cross Pol Isolation
≥ 25dB

Azimuth Rotation
360°continuousrotation

Azimuth Angular Velocity
100°/s

Track Mode
Full spacepre-scanning location track

Tracking Accuracy
0.25°RMS

Initial Acquisition
Static≤120s,Dynamic≤180s

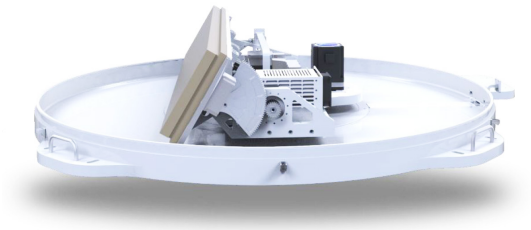
Re-Acquisition
less than 3s whentarget lost for 30s

Input Power
AC220V 50Hz standard power consumption 180W

Operating Temperature
-40℃～65℃

TS-LM600
0.6m Ku Band Land Mobile Antenna

Automatically collect and output carrier position and attitude information
Storage of more than 10 satellite position parameter
Terminal One-key start, antenna tracking the satellite automatically
Polarization direction automatically adjust
Power-down memory and protection
Device detection and status checking
Power-on self test and fault alarming



MODEL
TS-LM600

Stablization
2 axis stable and 4 axis tracking

Antenna Type
Panel waveguide horn array

Dimension
Φ1300mm×300mm

Weight
58kg

Frequency Range
RX：12.25～12.75GHz　TX：14.00～14.50GHz

Gain
RX：35.2dBi（12.50GHz） TX：36.2dBi（14.25GHz）

Polarization
Linear

Cross Pol Isolation
≥30dB

Antenna Motion Range
Azimuth：360°continuous rotation　Elevation：0°～90°
Roll: ～　Pol: 360°continuous rotation

Track Mode
INS measurement and signal tracking

Tracking Accuracy
0.25°RMS

Initial Acquisition
≤120s

Re-Acquisition
block time ≤10 minutes, acquisition immediately
10 minutes＜block time≤30
minutes, acquisition≤5s
block time＞30minutes, acquisition≤10s

Input Power
AC220V 50Hz, standard power consumption ≤200W

Operating Temperature
-40℃～65℃

TS-LM600EX
0.6m Ku Band Land Mobile Antenna

Automatically collect and output carrier position and attitude information
Storage of more than 10 satellite position parameter
Terminal One-key start, antenna tracking the satellite automatically
Polarization direction automatically adjust
Power-down memory and protection
Device detection and status checking
Power-on self test and fault alarming

MODEL
TS-LM600EX

Stabilization
2 axis stable and 4 axis tracking

Antenna Type
Panel waveguide horn array

Dimension
Φ1250mm×300mm

Equivalent Diameter
600mm

Weight
≤65kg

Frequency Range
RX：10.70～12.75GHz　　TX：13.75～14.50GHz

Gain
RX：35.20dBi（12.50GHz）　TX：35.60dBi（14.25GHz）

Polarization
Linear

Cross Pol Isolation
≥30dB

Antenna Motion Range
Azimuth：360°continuous rotation　Elevation：10°～90°
Roll: ～　Pol: 360°continuous rotation

Track Mode
INS measurement and signal tracking

Tracking Accuracy
≤0.2°

Initial Acquisition
≤120s

Re-Acquisition
block time ≤1 minutes, acquisition immediately
1 minutes＜block time≤10 minutes, acquisition≤15s
block time＞10minutes, acquisition≤30s

Input Power
AC220V 50Hz, standard power consumption ≤220W

Operating Temperature
-45°~ 70°

TS-LM600VIPA
0.6m Ku-Band

TS-LM600VIPA is designed with the structure of separated receive and transmit aperture to achieve high gain and wide angle beam scanning, which guarantee stable tracking of target satellite for carriers in motion.The thickness of the antenna is less than 100mm,The weight is less than 68kg,It is the thinnest VIPA antenna in the world.

MODEL
TS-LM600VIPA

Stabilization
6 axis stable tracking

Antenna Type
VIPA

Dimension
1780mm (L) ×780mm (W) ×98mm (H)

Weight
≤68kg

Frequency Range
RX：12.2～12.75GHz　　TX：14.0～14.5GHz

Gain
Rx≥31.6dBi (12.5GHz) @30°ELRx≥35.1dBi (12.5GHz) @90°EA

Tx≥32.8dBi (14.25GHz) @30°EL Tx≥36.3dBi (14.25GHz) @90°EA

Polarization
Linear

Cross Pol Isolation
＞35dB

Antenna Motion Range
Azimuth：360° Continuous rotation

Elevation：30°～90°

Carrier Motion Range
Roll：-30°～30°, period 8s

Pitch：-30°～30°, period 8s

Yaw：40°/s

Track Mode
Full space pre -scanning location track

Tracking Accuracy
0.2°RMS

Initial Acquisition
≤120s

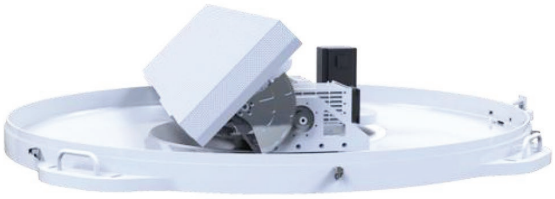
Re-Acquisition
≤2s

Input Power
AC220V 50Hz, standard power consumption 160W

Operating Temperature
-40°C~ 65°C

TS-LM720T
0.72m Ku Band Land Mobile Antenna

Automatically collect and output carrier position and attitude information
Storage of more than 10 satellite position parameter
Terminal One-key start, antenna tracking the satellite automatically
Polarization direction automatically adjust
Power-down memory and protection
Device detection and status checking
Power-on self test and fault alarming



MODEL

TS-LM720T

Stabilization

2 axis stable and 4 axis tracking

Antenna Type

Panel waveguide horn array

Equivalent Diameter

720mm

Dimension

Φ1350mm×350mm

Weight

68kg

Frequency Range

RX：12.25～12.75GHz　　TX：14.00～14.50GHz

Gain

RX：36.5dBi@12.50GHz　　TX：37.4dBi@14.25GHz

Polarization

Linear

Cross Pol Isolation

≥30dB

Antenna Motion Range

Azimuth：360° Continuous rotation

Elevation：5°～ 90°

Roll: ～　Pol: 360°continuous rotation

Track Mode

INS measurement and signal tracking

Tracking Accuracy

≤0.2°RMS

Initial Acquisition

≤120s

Re-Acquisition

block time ≤10 minutes, acquisition immediately

10 minutes＜block time≤30 minutes, acquisition≤5s

block time＞30minutes, acquisition≤10s

Input Power

AC220V 50Hz, standard power consumption ≤220W

Operating Temperature

-40°C~ 65°C

TS-LM800P
0.8m Ku Band Land Mobile Antenna

Automatically collect and output carrier position and attitude information
Storage of more than 10 satellite position parameter
Terminal One-key start, antenna tracking the satellite automatically
Polarization direction automatically adjust
Power-down memory and protection
Device detection and status checking
Power-on self test and fault alarming

MODEL
TS-LM800P

Stabilization
2 axis stable and 3 axis tracking

Antenna Type
Ring focus

Dimension
Φ1110×580mm

Weight
65kg

Frequency Range
RX：12.25～12.75GHz　　TX：14.00～14.50GHz

Gain
RX：37.2dBi（12.50GHz）　　TX：37.7dBi（14.25GHz）

Polarization
Linear

Cross Pol Isolation
≥30dB

Antenna Motion Range
Azimuth：360° Continuous rotation
Elevation：10° ～ 85°
Roll: ～　Polarization: 0°～270°

Track Mode
INS measurement and signal tracking

Tracking Accuracy
0.2°RMS

Initial Acquisition
≤120s

Re-Acquisition
block time ≤10 minutes, acquisition immediately
10 minutes＜block time≤30 minutes, acquisition≤5s
block time＞30minutes, acquisition≤10s

Input Power
AC220V 50Hz, standard power consumption 200W

Operating Temperature
-40°C~ 65°C

TS-LM900T
0.9m Ku band Land Mobile Antenna

Automatically collect and output carrier position and attitude information
Storage of more than 10 satellite position parameter
Terminal One-key start, antenna tracking the satellite automatically
Polarization direction automatically adjust
Power-down memory and protection
Device detection and status checking
Power-on self test and fault alarming

MODEL
TS-LM900T

Stabilization
2 axis stable and 4 axis tracking

Antenna Type
Panel waveguide horn array

Dimension
Φ1375mm×515mm

Equivalent Diameter
900mm

Weight
90kg

Frequency Range
RX：12.25～12.75GHz　　TX：14.00～14.50GHz

Gain
RX：38.2dBi（11.7GHz）　　TX：38.8dBi（14.25GHz）

Polarization
Linear

Cross Pol Isolation
≥30dB

Antenna Motion Range
Azimuth：360° Continuous rotation
Elevation：10° ～ 90°
Roll: ～　Pol: 360°continuous rotation

Track Mode
INS measurement and signal tracking

Tracking Accuracy
0.2°RMS

Initial Acquisition
≤120s

Re-Acquisition
block time ≤10 minutes, acquisition immediately
10 minutes＜block time≤30 minutes, acquisition≤5s
block time＞30minutes, acquisition≤10s

Input Power
AC220V 50Hz, standard power consumption 280W

Operating Temperature
-40°C~ 65°C

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