



SAT.ONE

MOSAIC

Powered by Kymeta



The Sat One MOSAIC provides a complete connectivity solution for on-the-go communications when and where you need it in a single integrated platform.

Leveraging revolutionary software-defined, electronic beam steering antenna technology, the MOSAIC has been engineered for robust performance, class leading capabilities, and broad environmental specifications. The terminal includes an embedded satellite modem, and an option for a cellular modem, SD-WAN router, and Wi-Fi hotspot, while maintaining a low power, low profile integration for seamless communication on mobile platforms.

The MOSAIC-GO configuration is easily transportable and can support communication while in the case, on the ground, or mounted on a vehicle for easy deployment in multiple use cases. The multi-function hardened case is tested to MIL-STD-810H transportation standards and comes with hardened tie-down points.

Global connectivity is available in by-the-gigabyte packages or unlimited CIR plans. The Sat One Access application provides an intuitive user experience to interface with the MOSAIC and Access portal data.



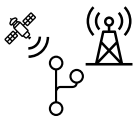
Designed for Mobile Platforms

Low profile, aerodynamic design, native DC power input, and new accessories simplify vehicle integration.



Designed for Maritime Installations

Lightweight, compact, elegant modern design, plug and play ease, and ultra-reliable system in a turnkey weather-hardened enclosure.



Always-On Connectivity

With a Multi-WAN satellite and cellular configuration, the hybrid terminal provides communication anywhere.



Cloud-Enabled Solutions

Access to terminal metrics and SD-WAN, edge content, and connectivity management tools are available via a cloud-based portal.



Leo Enablement

The antenna is also designed for KU-Band Leo constellations. You can convert your mosaic to Leo enablement at a later time.





SPECIFICATIONS

ANTENNA

- **BAND** : Ku
- **ANTENNA TYPE** : Electronically scanned array
- **APERTURE** : RX and TX combined 82 cm active diameter
- **POLARISATION** : Linear, software-defined (circular with software upgrade)

RX

- **RX FREQUENCY RANGE** : 10.7 GHz to 12.75 GHz
- **G/T BROADSIDE** : 9.5 dB/K to 12 dB/K
- **G/T @ 35° ELEVATION, TYPICAL LAND MOBILE** : 6.5 dB/K to 9.5 dB/K

TX

- **TX FREQUENCY RANGE** : 13.75 GHz to 14.5 GHz
- **TX GAIN BROADSIDE** : 34 dBi to 34.5 dBi
- **TX GAIN @ 35° ELEVATION, TYPICAL LAND MOBILE** : 32 dBi to 32.5 dBi
- **CROSS-POLARISATION ISOLATION** : ≥ 25 dB
- **TX INSTANTANEOUS BANDWIDTH** : > 62 MHz
- **EIRP BROADSIDE (TERMINAL)** : 46 dBW to 46.5 dBW

TRACKING

- **SCAN ANGLES** : Az 360°, El +15° to +90°
- **TRACKING RECEIVER TYPE** : Integrated tracking system DVB-S2, DVB-S2X

INTERFACES

- **NETWORK INTERFACE** : Ethernet, Wi-Fi (excluding antenna)
- **RF CONNECTORS** : N-type
- **WAVEGUIDE PORT** : WR-75

CONNECTIVITY

- **SETUP TIME OF TERMINAL** : Unpack, lift, mount, and operate in less than 20 minutes
- **ACQUISITION OF SIGNAL** : Less than 1 minute from initiation of acquisition

MECHANICAL

- **DIMENSIONS** : **ODU** - L 89.5 cm × W 89.5 cm × H 14 cm
: **TERMINAL** - L 89.5 cm × W 89.5 cm × H 14 cm
: **GO** - L 104 cm × W 104 cm × H 38 cm
- **WEIGHT** : **ODU** - 31 kg
: **TERMINAL** - 34 kg
: **GO** - ~68 kg*
- **OPERATIONAL TEMPERATURE#** : -40 °C to +55 °C (ambient), -40 °C to +70 °C (with solar load)
- **STORAGE TEMPERATURE** : -40 °C to +85 °C
- **INGRESS PROTECTION** : IP66



POWER

- DC INPUT POWER : 12 VDC to 36 VDC max
- POWER CONSUMPTION : WITH EMBEDDED MODEM AND RF CHAIN: 130 W (typical), 250 W (peak)#
: NO MODEM, RF CHAIN: 35 W (typical), 250 W (peak)#

COMPLIANCE

- CERTIFICATIONS : CE, FCC, Nemko, WEEE, RoHS, Salt Fog

ODU SUPPORTED MODEMS

- IDIRECT : iDirect Evolution and Velocity platform with X7, 950mp, and iQ 200 routers
- VIASAT : Viasat ArcLight platform with CBM-400 modem
- COMTECH : Comtech SLM-5650B and UHP-200 routers
- AUTOMATIC ACQUISITION POSSIBLE WITH SYSTEMS SUPPORTING OPENAMIP V.1.12 : Newtec Dialog platform with MDM3310 and MDM2510 modems
: Gilat SkyEdge II-c platform with Capricorn-4 modem
: Comtech UHP-100 router

AVAILABLE CONFIGURATIONS

- OUTDOOR UNIT (ODU) : Flat-panel, full-duplex antenna
 - Integrated radome
 - Integrated antenna control unit (ACU)
 - Integrated antenna power supply
 - Satellite auto-acquisition and tracking capability
 - All outdoor, robust IP66 rated enclosure: RF chain with low-profile BUC
: Shroud with integrated air circulation solution
- SATELLITE TERMINAL : ODU
: Embedded iDirect iQ 200 satellite modem
: Supports multiple VLANs and existing satellite network configurations
- HYBRID TERMINAL : ODU
: Embedded iDirect iQ 200 satellite modem
: Embedded multi-WAN device with global LTE support (global or North America and public safety configurations)
- GO : ODU, satellite terminal or hybrid terminal
: Rugged transport case with built-in tie-down points
: Tilt mechanism for COTP deployments
: AC-to-DC universal power kit
: Vehicle mount
: Case designed for rapid water ingress

AVAILABLE ACCESSORIES

- Vehicle mount kit
- Vehicle power kit
- AC-to-DC power kit

Software-controlled peak power draw.
User-configurable to a higher threshold for very low-temperature operation.

* The exact weight depends on the product configuration.

