



TMYTEK's innovative ESA solution evaluated heterogeneous integration of III-V and CMOS technologies to enable high EIRP for quick prototyping, while offering excellent reliability and durability by utilizing LTCC technologies. Antenna performance is also benefited through high beam agility and tile design features.

Ku-Band SATCOM Antenna for In-flight Connectivity

TMYTEK's in-flight connectivity ESA solution offers high-performance communication capabilities that connect commercial and private airline passengers to online broadband services via GEO satellites.

Features

- Supports Ku-band, and L-bands (IF) ready
- 8x8, 16x16 tile-based and dual polarization
- Built-in ACU (Antenna Control Unit) for tracking satellites
- LTCC process know-how from material to manufacture
- Commercial and defense ready
- Extreme weather resistant

Connectivity

In-flight initial acquisition	<120 second
Re-acquisition	<30 second
SATCOM modem	iDirect

Tracking

Scan angles	Azimuth 360°, elevation +45° to +90°
Beam update rate	<1 msec
Pointing accuracy	<0.2°

Antenna

Antenna type	Electronically scanned antenna
Polarization	Dual-pol. linear, RHCP/LHCP
Rx frequency range (RF)	10.7 to 12.75 GHz
Rx frequency range (IF for modem)	950 to 2150 MHz
G/T	≥11 dB/K
Tx frequency range (RF)	13.75 to 14.5 GHz
Tx frequency range (IF for modem)	950 to 1950 MHz
EIRP	≥50 dBW

Mechanical

Dimension	85 (L) x 120 (W) x 15 (H) (cm ³)
Weight	<100 KG
Operational temperature	-55°C to +55°C
Storage temperature	-55°C to +74°C

Power

DC input power	22 to 28 V
Power consumption	<1000 W

Interface

User control interface	Ethernet
Modem	Ethernet (OpenAMIP)
DC in connector type	DIN connector
Analog	SMA

Environment

Compatible with	RTCA DO-160G and MIL-STD-810G
-----------------	-------------------------------



**Subject to change*

