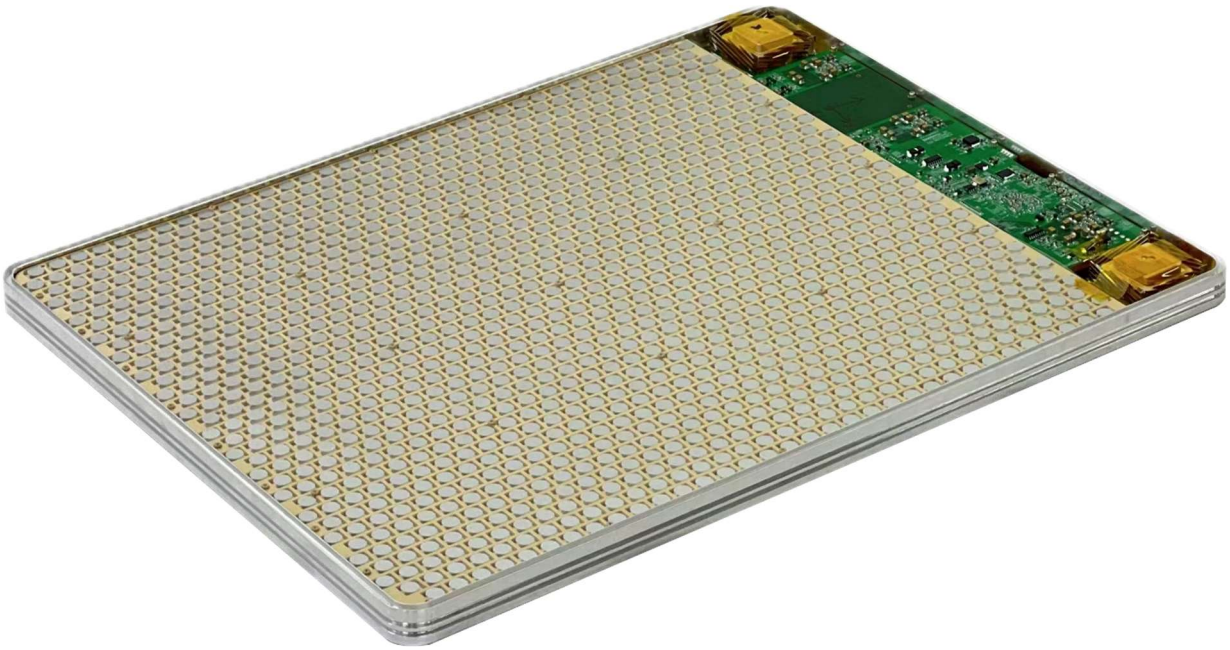
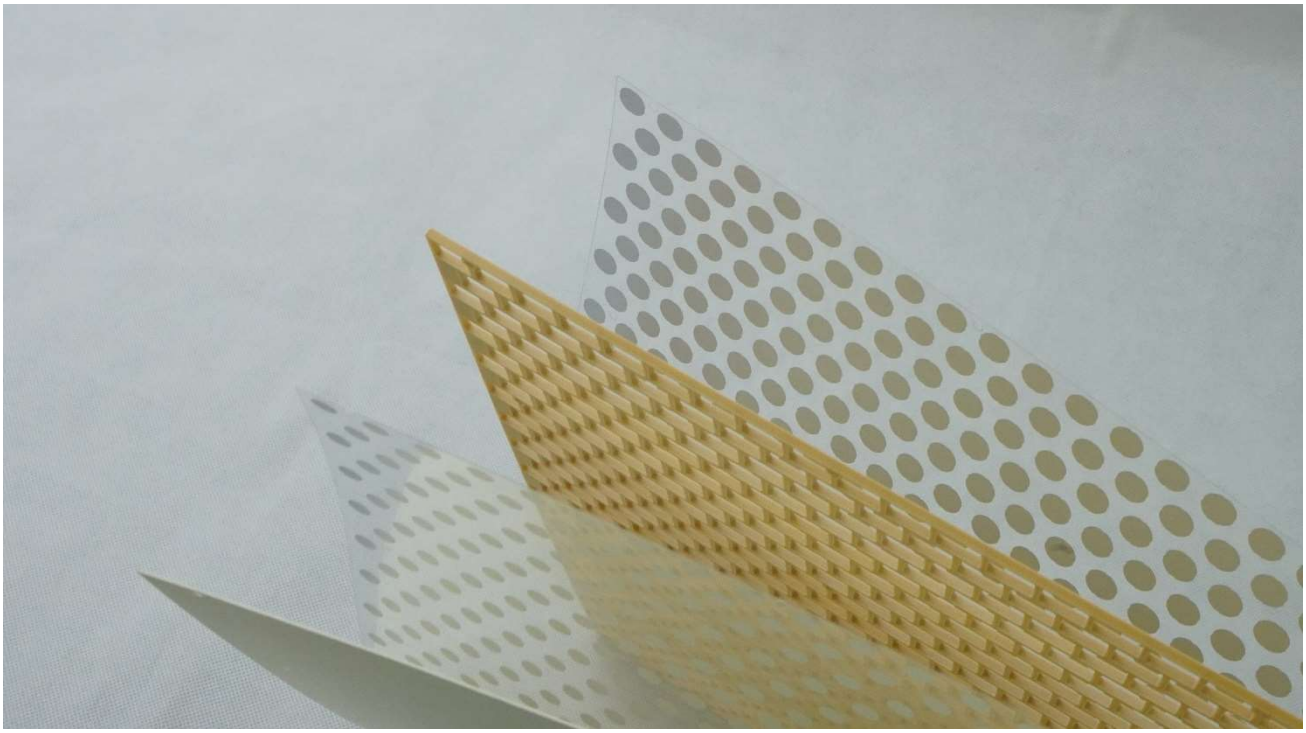
# Ku-band LEO TDD Satellite Communication Phased Array Terminal

## Product Photos:





## Technical Parameters:

| Items | Parameters |
|---|---|
| **Working Frequency** | Receive: 10.7-12.7GHz |
| | Emission: 14.0-14.5GHz |
| **Working Mode** | TDD |
| **Beams** | 1T1R |
| **Polarization** | Rx: RHCP, Tx: LHCP |
| **Tx EVM** | ⩽1.35% @ 16QAM |
| **Power Control** | Equal PFD modulation, Equal EIRP,<br>Phased array characteristics, Manual pairing |
| **Scanning Range** | Azimuth: 0°-360°, Pitch angle: 25°-90° |
| **IBW** | Downstream: 240MHz, Uplink: 100MHz |
| **OBW** | Downstream: 240MHz |
| | Uplink: 6.25MHz, 12.5MHz, 25MHz, 50MHz, 100MHz |
| **Modulation** | Downlink: π/2BPSK, QPSK, SPSK, 16APSK, 32APSK |
| | Uplink: QPSK, 8PSK, 16QAM |
| **Beam Tracking Mode** | Support tracking altitude of 500~1200km, including:<br>1. Program-controlled tracking based on almanac/ephemeris<br>2. Active closed-loop tracking based on received signals |
| **Max Tracking Error** | ⩽±0.5dB |
| **Mobility** | Horizontal speed ⩾120 km/h, Vertical speed ⩾36 km/h |
| **Initial Alignment Time** | Dynamic: ⩽90s, Static: ⩽80s |
| **G/T** | Normal direction: ⩾7.5 dB/K @ 11.7GHz |
| | Off-axis angle 65°: ⩾2.5 dB/K @ 10.7~12.7GHz |
| **EIRP** | Normal direction: ⩾41dBW @ 14.0~14.5GHz |
| | Off-axis angle 65°: ⩾35.5dBW @ 14.0~14.5GHz |
| **Power Supply** | 24V DC - 48V DC |
| **Power Consumption** | ⩽180W (When snow melting function off) |
| **Dimensions** | 500mm * 400mm * 50mm |
| **Weight** | ⩽6kg |
| **Working Temperature** | -40℃~+55℃ (Solar radiation, no wind) |
| **Storage Temperature** | -40℃~+80℃ |
| **Heat Dissipation** | Natural |

| | |
|---|---|
| **Protection Level** | IP67 |
| **Random Vibration** | Vibration resistant during transportation and usage |
| **Relative Humidity** | 100% non-condensing |
| **Anti-salt Spray** | Support |
| **Solar Radiation** | ⩽1kW/m² |
| **Wind Resistance** | 90km/h |
| **Melting Snow** | 40mm/h |
| **Anti-ponding** | Support |
| **MTBF** | ⩾30,000h |