MinWave

Miniaturized Satcom terminals using metamaterial technology

Laptop sized self-pointing nomadic terminal

MinWave Nomadic GEO-Terminal

Portable GEO Terminal for Interactive Communication

The **MinWave** Nomadic Terminal is a cutting-edge solution for GEO satellite connectivity, designed for users who need a practical, portable, and efficient bidirectional communication system. Ideal for semi-fixed environments where full beam steering is unnecessary, this terminal offers a unique balance of mobility, ease of use, and advanced performance.

Core Technology

- Patented metamaterial-based array antenna feed
- Reflector for gain enhancement
- Optimized RF system for beam steering

Application

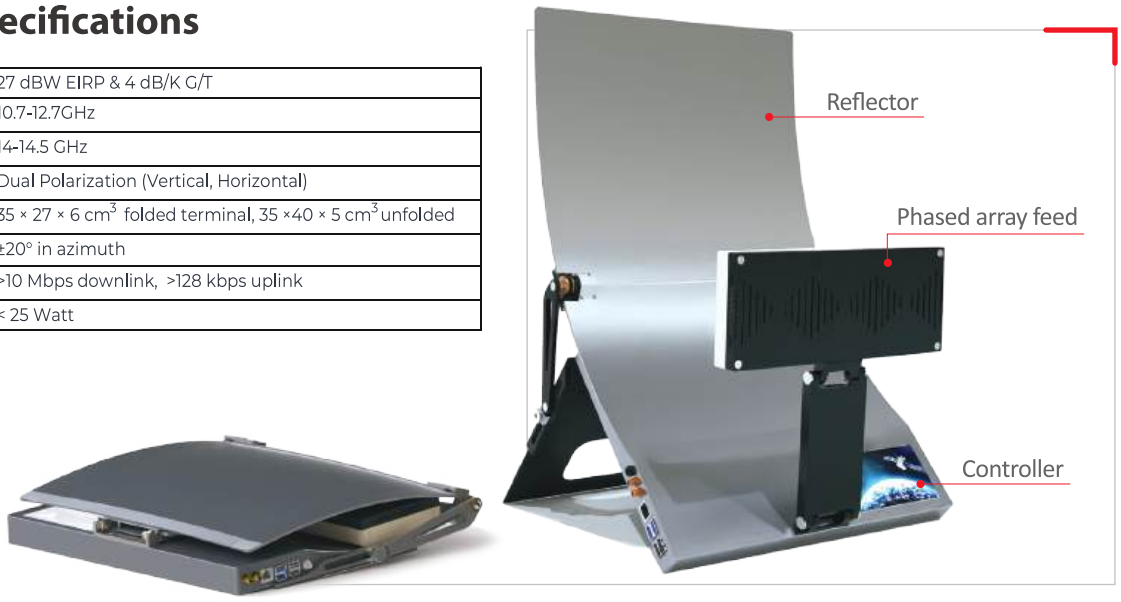
- DTH (Direct-to-Home)
- Remote communication applications

Key Features

- Self-Pointing with Azimuth Beam Steering (±20°) for seamless satellite connectivity
- Compact & Foldable Design
- Bidirectional Communication (Receive and Transmit), Smart LNB
- Low Power Consumption (< 25W) for efficient operation
- Data Throughput: Downlink > 10 Mbps, Uplink > 128 kbps
- Optimized EIRP & G/T (26.8 dBW EIRP, 4 dB/K G/T)

Technical Specifications

EIRP & G/T	27 dBW EIRP & 4 dB/K G/T
RX Frequency	10.7-12.7GHz
TX Frequency	14-14.5 GHz
Polarization	Dual Polarization (Vertical, Horizontal)
Package Size	35 × 27 × 6 cm^3 folded terminal, 35 ×40 × 5 cm^3 unfolded
Steerability	±20° in azimuth
Throughput	>10 Mbps downlink, >128 kbps uplink
Power	< 25 Watt



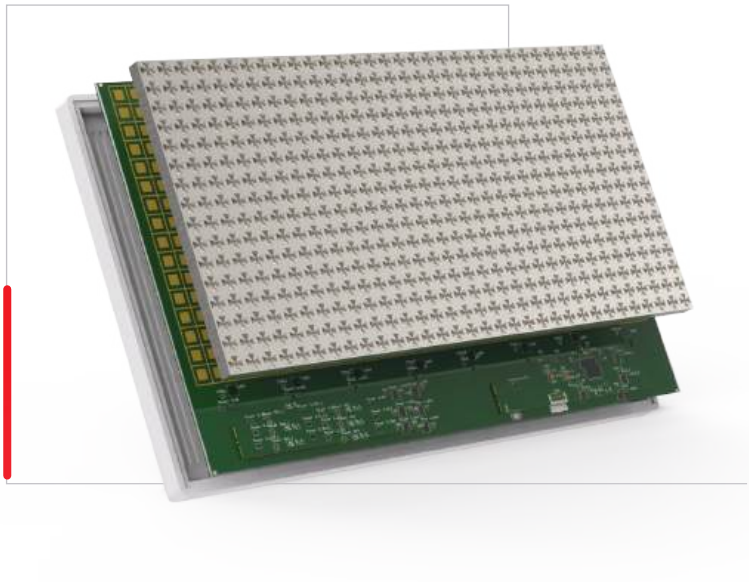
MinWave Self-Pointing Flat Panel Antenna

Compact, Cost-Effective, and Effortless Satellite Reception

The Self-Pointing Flat Panel Antenna automatically aligns with GEO satellites, providing effortless installation, accurate tracking, and consistently high-quality reception. Its compact, lightweight design eliminates the need for manual adjustments, making it an excellent option for Direct-to-Home (DTH) applications. Additionally, its low power consumption and cost-effectiveness make it a top choice for satellite media consumption.

Key Features

- Automatic Self-Pointing
- Smart Electronic Beam Steering
- Compact & Lightweight
- Effortless Setup
- Energy Efficient
- Affordable at Scale



Technical Specifications

Use Case	DTH
Polarization	Dual polarization
Package Size	40 × 5 × 25 cm
Steerability	±20 ° in azimuth (electronic)
Bandwidth	10.7 -12.7 GHz (receive only)
Throughput	>10 Mbps downlink
Power Consumption	< 20 Watts

MinWave Miniaturized Full-duplex LEO/GEO Terminal

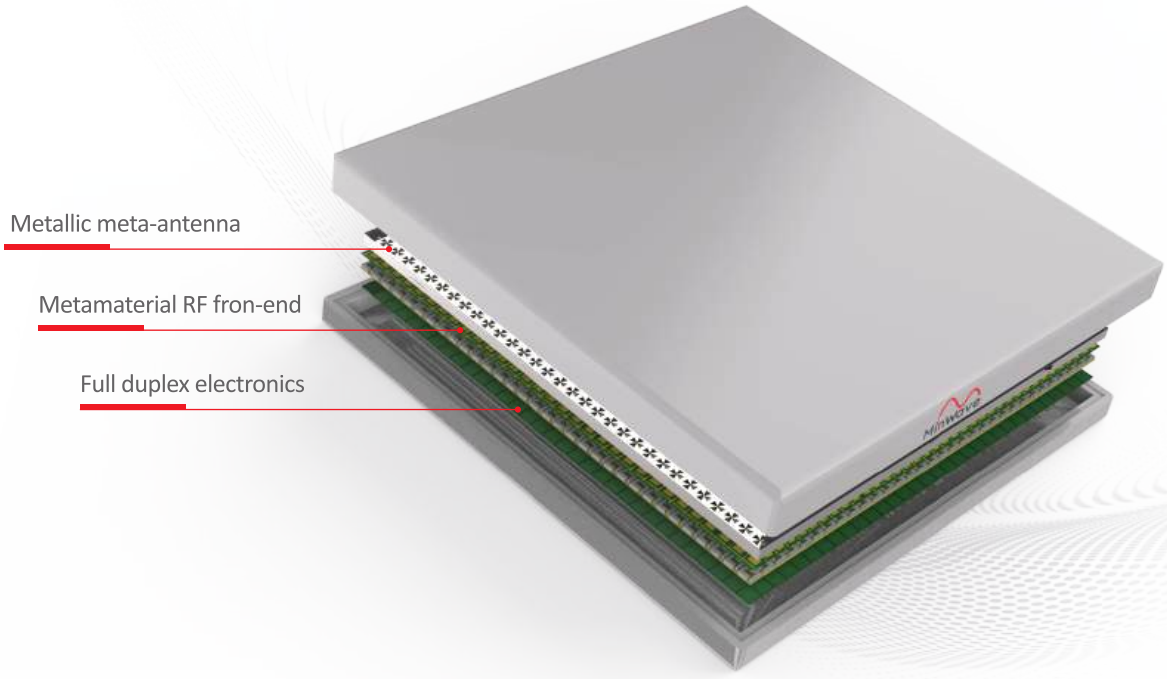
Revolutionizing Satellite Communication at Ku-Band

The **MinWave** LEO-Terminal is an advanced solution engineered to deliver a high-performance full-duplex antenna for home and automotive applications. Unlike traditional terminals, it harnesses patented metamaterial technology to provide a compact, wideband, and miniaturized full-duplex antenna solution.

Key Innovations & Competitive Advantages

- Miniaturized Wideband energy efficient TRX Antennas (33% Bandwidth)
- Full-Duplex RF Frontend with Innovative patented metamaterial diplexer
- TRX Active RF Chain for Beamforming
- Electronically Controlled Polarization Switching

Shared aperture full-duplex antenna technology



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