

TECHNICAL SPECIFICATIONS



ESPOD BASE A1000 Series Wireless Point-to-Multipoint Solution

ESPOD BASE A1000 Series is a very well field proven family of wireless point-to-multipoint products designed for various applications including fixed wireless access infrastructure for operator and enterprise networks as well as select nomadic and mobile scenarios.

The innovative high-performance base stations and CPE models are available for both licensed and unlicensed bands with variety of integrated antenna and connectorized models available.

Frequency Bands

3.1 — 4.0 GHz
4.9 — 6.0 GHz
6.0 — 6.4 GHz

Key Features and Highlights

- 240 Mbps maximum base station sector capacity
- Multiple licensed and license-free frequency bands supported
- Widest range of integrated antenna BS sector units and subscriber terminals
- Flexible frequency planning and powerful interference mitigation tools
- Advanced Quality-of-Service features

Applications

- Triple-play wireless ISP networks
- Video surveillance, traffic management and public safety wireless infrastructure
- Fixed, nomadic and mobile connectivity solution for SCADA systems
- Long-range rural connectivity
- Government and municipal networks

Fully scalable and spectral efficient licensed band solution

- maximal utilization of the available spectrum through the support of TDD synchronization and frequency re-use
- intra- and inter-site synchronization via GNSS-based common timing reference using AUX-ODU-SYNC
- minimal requirement of just two frequency channels per the site and four channels per the network
- multiple channel widths supported: 3.5/5/7/10/14/15/20/28/30/40 MHz
- minimal centre frequency adjustment step is 125 kHz
- ESPOD BASE A1000 is fully suitable to replace outdated WiMAX networks in order to improve ARPU boosting the capacity and providing brand new services

Self-optimizing and self-healing solution for license exempt bands

- Unique Instant DFS technology allowing continuous background monitoring of all available channels and instantaneous switch to another frequency channel for the BS sector and all its subscribers in case of congestion
- Spectrum analysis tool supporting multiple modes for in-depth review
- Adaptive marker access (polling) air architecture optimized for best performance in the noisy spectrum
- Proactive automatic modulation control algorithm

Best-in-breed solution for long-range rural connectivity

- High gain integrated base station sectors and subscriber terminals boost sector coverage up to 25 km
- All-integrated solution in combination with installation and field diagnostics tools available facilitate rapid deployment and reduce installation costs
- Robust and durable design featuring IP66/IP67 water and dust protection as well as built-in lightning protection help reducing total cost of ownership (TCO) and meet service level agreement (SLA) requirements of the most demanding customers

Comprehensive set of features covering vast variety of applications

- Full fledged L2 switch supporting VLAN, Q-in-Q, Spanning tree protocols, etc.
- Static and dynamic (RIP, OSPF) IP routing and “hybrid” switching-then-routing mode
- GRE and IPIP tunneling
- Unique proprietary MINT architecture
 - joining multiple wireless segments into a single “virtual” system
 - end-to-end QoS, switching and routing
 - inherent support for redundant connections and instant failover
 - centralized management and firmware update

Management and maintenance features

- Multiple management interfaces including CLI, web and SNMP v.1/2c/3
- Collecting statistics and performing diagnostics using sFlow, syslog, LLDP and SNMP traps
- ESPOD BASE A1000 systems can easily be integrated into a 3rd party NMS
- In-house ESPOD Monitoring System provides all necessary monitoring and management capabilities for ESPOD A600 based networks of any size

PART NUMBER	CAPACITY	ANTENNA	TX POWER	FREQUENCY BAND	RECOMMENDED DISTANCE
ES-A1000-3	up to 240 Mbps connectorized		1000 mW	3.1 – 3.4 GHz 3.4 – 3.7 GHz 3.7 – 3.9 GHz 3.9 – 4.0 GHz	Middle-to-long range (20+ km)
ES-A1000-5	up to 240 Mbps connectorized		1000 mW	4.9 – 6.0 GHz	30+ km
ES-A1000-6	up to 240 Mbps connectorized		1000 mW	6.0 – 6.4 GHz	Middle-to-long range (20+ km)

