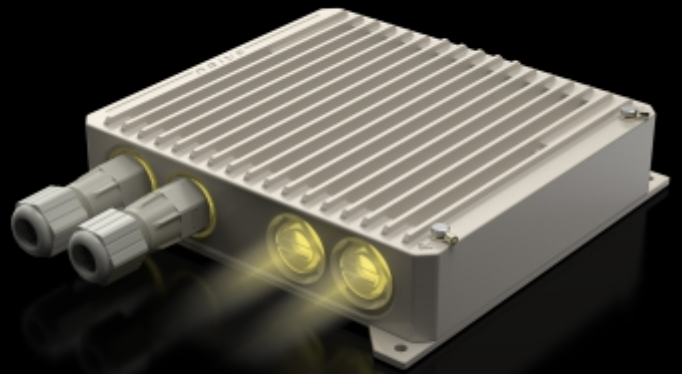


# ASTRADRIVE Terminal Unit

GENERATION 2

PRODUCT DATASHEET

The Terminal Unit delivers carrier-grade wireless connectivity with throughput up to 750 Mbps. New DRIVE network technology for seamless roaming at speeds of up to 400km/h.



This innovative solution features two radio modules, each of which operates at 2, 5 or 6 GHz, and a built-in Wi-Fi access point. Purpose-built for mission-critical applications in rail, mining and port operations, this rugged terminal ensures continuous communication while withstanding extreme conditions, heavy vibration and temperatures from -55°C to +60°C.

Net throughput

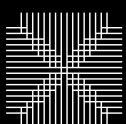
Up to 750 Mbps on 2 radios  
in 2x80 MHz

Transmit power

Up to 27 dBm

Part number example

E5/6-TU (for two radios  
5 and 6 GHz)



Astrawireless

Manufacture: ASTRA WIRELESS TECHNOLOGY FZ-LLC  
Brand: ASTRAWIRELESS

# TECHNICAL SPECIFICATION

Net throughput*	up to 750 Mbps in 80 Mhz up to 750 Mbps in 40 Mhz up to 300 Mbps in 20 Mhz
Packet performance	180 000 pps
Transmit power**	up to 27 dBm
Receiver sensitivity	down to -90 dBm
Antenna gain	4xN-type connectors
Frequency range*	4900-6050 MHz 6050-6425 MHz
Channel width	2x20, 2x40, 2x80 MHz
Center frequency adjustment step	1 MHz
Power consumption	up to 15 W
Recommended distances	10+ km

\*Depends on the radio modules configuration.  
May be limited by regional frequency restrictions

\*\*May be limited by regional EIRP restrictions



**Astrawireless**

Astra Wireless Technology. All rights reserved.  
[www.astrawireless.net](http://www.astrawireless.net)  
[sales@astrawireless.net](mailto:sales@astrawireless.net)

Astra Wireless Technology FZ-LLC T1-4F-63,  
RAKEZ AMENITY CENTER AL HAMRA  
INDUSTRIAL ZONE-FZ RAK, UAE



# RADIO FEATURES

- Adaptive TDMA air protocol
  - Dynamic and fixed air frame duration
  - Subscriber activity aware scheduling
  - Permanent channel testing
- Air frame Configurable
  - From 1 to 10 ms
  - Uplink / Downlink ratio Configurable from 50:50 to 92:8, in any direction
- Voice/RTP Aware Superpacketing
  - DFS / Radar detection / Instant DFS
- Channel Time Adjustment
  - Spectrum Analyzer mode
  - Channel testing tools
- Automatic Bitrate Control
  - Automatic Transmit Power Control
  - Automatic Distance Measurement

# NETWORKING FEATURES

- Switching
  - Full-fledged 2nd layer switch
  - VLAN 802.1Q, 802.1ad
  - IGMP Snooping
  - MAC/IP filtering, L2/L3 Firewall
  - STP, RSTP support
- Quality of Service
  - IEEE 802.1p, IP TOS/DiffServ support
  - 17 priority queues
  - Full voice support
  - Auto priority of multicast
  - Traffic limiting (absolute, relative)
- Routing
  - ARP protocol support
  - NAT (multipool, H.323-aware)
  - DHCP client/server/relay
  - ODR routing protocol
  - RIPv2 / OSPFv2 /static routing
  - Ethernet-over-IP and IP-over-IP tunnels
- Own network infrastructure
  - Proprietary MINT network protocol
  - Pseudo-radio interface



# MANAGEMENT AND SECURITY

## Management features

- Various Management Protocols: HTTP, HTTPS, SSH, Telnet, SNMP v1/2c/3 (MIB-II and proprietary MIBs)
- Graphical User Interface
- Antenna alignment tool
- Automatic software update
- Online monitoring with proprietary EMS NEXT

## Safety & Security

- Storm/flood protection
- Password protection
- Secure CLI access via SSH protocol
- AES-128/256 (pending)

## LED Indication

- Power status, wired link status

# STANDARD COMPLIANCE

## Radio

- ETSI EN 301 893 v.2.1.1
- ETSI EN 302 502 v.2.1.1
- FCC part 15.407

## Safety

- EN 62368-1:2014+A11:2017
- UL 62368-22:2017
- EN 62311:2008

## RoHS3

- EN IEC 63000:2018

## EMC

- ETSI EN 301 489-1 v.2.2.3
- ETSI EN 301 489-17 v.3.2.4
- FCC Part 15 Class B

## Lightning protection

- IEC 61000-4-2:  
+/-4kV (contact discharge),  
+/-8kV (air discharge)
- IEC 61000-4-4:  
+/-0.5kV IEC 61000-4-5:  
+/-1kV (line-to-ground),  
+/-0.5kV (line-to-line)

# OPERATION OPTIONS

## Outdoor Unit conditions

- -40..+60°C, can be extended to -55..+60°C (models with "t" index)
- 100% humidity, condensing
- Dust and water protection: IP56, IP67
- Wind load: 160 km/h operational; 200 km/h survival

## Indoor Unit conditions

- 0..+40°C
- 95% humidity, non-condensing
- Cooling: fanless design corrugated aluminium