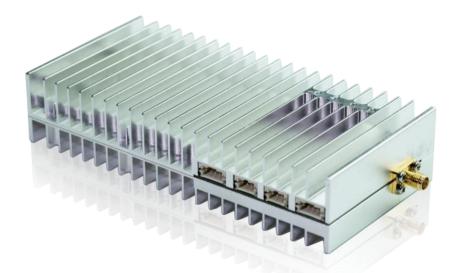


# 10Watts 2\*2 MIMO Broadband IP MESH Link



FD-615MT build a no center, self-forming, self-adapting and self-healing dynamic routing/ automatic relay communication mesh network. It achieves dynamic routing, multihop relay HD video, multi-channel data and fidelity voice between different nodes of the same network in complex applications, such as fast movement and non-line-of-sight environmental distance.

Smart antenna MIMO and self-forming packet wireless mesh network AD-HOC/MESH, which make FD-615MT provide real-time HD video and broadband Ethernet connection with 30Mbps transmission rate and distance of 100km-150km(air to ground) and 3-10km(nlos ground to ground). It is special for wireless communication in critical private networks.

#### **KEY BENEFITS**

- Bandwidth 1.4Mhz/3Mhz/5Mhz/10Mhz/20Mhz
- Transmitting Power: 40dBm
- Support 800Mhz/1.4Ghz frequency options
- Air to ground 100km-150km range
- NLOS 3km-10km ground to ground distance
- Automatic power control
- Automatic frequency point control
- Ethernet communication via PH2.0 interface
- TTL communication via PH2.0 interface

## **Application**

- MESH long-distance communication
- Power and hydrological line patrol monitoring
- Emergency communications for fire fighting, border defense, and military
- Maritime communications
- Digital oilfield
- Fleet formation

GENERAL		MECHANICAL	
TECHNOLOGY	MESH based on TD-LTE Technology Standard		
ENCRYPTION	ZUC/SNOW3G/AES(128/256) OptionalLayer- 2 Encryption	TEMPERATURE	-20º to +55ºC
DATE RATE	30Mbps(Uplink+downlink)	DIMENSIONS	160.4*68*30mm
SENSITIVITY	10MHz/-103dBm	WEIGHT	280g
RANGE	100km-150km(Air to ground) NLSO 3km-10km(Ground to ground) (depends on the actual environment)	MATERIAL	Silver Anodized Aluminum
NODE	32 nodes	MOUNTING	Vehicle-mounted/Onboard
MODULATION	QPSK, 16QAM, 64QAM		
MIMO	2x2 MIMO	POWER	
Anti-jamming	Automatically frequency hopping		
RF POWER	10watts	VOLTAGE	DC 24V±10%
LATENCY	One Hop Transmission≤30ms	POWER CONSU MPTION	30watts
FREQUENCY		INTERFACES	
1.4Ghz	1427.9-1447.9MHz	RF	2 x SMA
800Mhz	806-826 MHz	ETHERNET	1xPH2.0
Note: The frequency band supports customized		PWER INPUT	1 x DC Input
		TTL Data	1xPH2.0
		Debug	1xPH2.0

COM	UART
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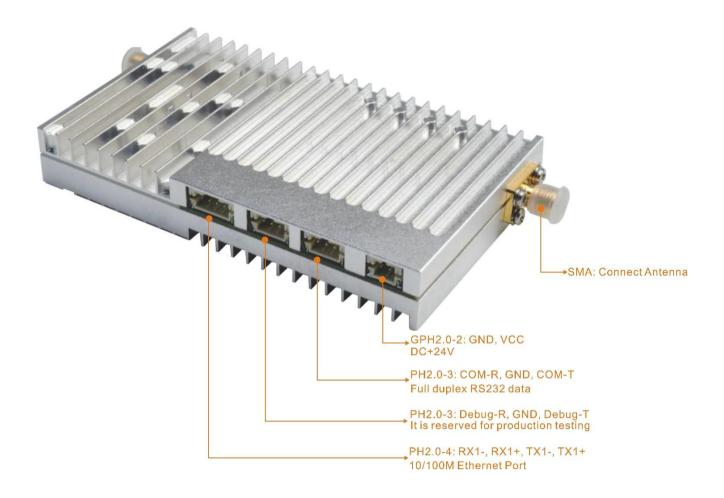
Electrical Level	3.3V and compatible with 2.85V	
Control Data	TTL	
Baud rate	115200bps	
Transmission Mode	Pass-through mode	
Priority Level	Higher priority than the network port When the signal transmission is crowed, the control data will be transmitted in priority	

#### Note:

- 1. The data transmitting and receiving is broadcast in the network. After successful networking, each FD-615MT node can receive serial data.
- 2. If you want to distinguish between sending, receiving and control, you need to define the format yourself

SENSITIVITY				
1.4GHZ	20MHZ	-100dBm		
	10MHZ	-103dBm		
	5MHZ	-104dBm		
	3MHZ	-106dBm		
800MHZ	20MHZ	-100dBm		
	10MHZ	-103dBm		
	5MHZ	-104dBm		
	3MHZ	-106dBm		

#### **INTERFACE**



### **Automatic Frequency Point Control**

After booting, it will try to network with the pre-stored frequency points before the last shutdown. If the pre-stored frequency points are not suitable for network deployment, it will automatically try to use other available frequency points for network deployment.

#### **Automatic Power Control**

The transmit power of each node is automatically adjusted and controlled according to its signal quality.

# **Dimension and Weight**

W: 280g

D: 160.4\*68\*30mm

