LINKIT
SISTEMI WIRELESS
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MEDIAFEED PLUS
MDF85000N

Professional Outdoor Base Station
Integrated 5GHz MiMo sectorial antenna

Performances and quality at low cost

Mediafeed Plus series is the Linkit answer at the growing need to have Base Station equipment with very high reliability and performance, while maintaining a low and extremely competitive cost.
It integrates into a single block, radio equipment and MiMo sectorial dual polarization antenna with "Advanced lambda Spread" technology.

Integrated MiMo antenna

The integration of a radio module with the sector antenna 90° or 120°, allows performances optimization; avoid the use of coaxial cables; reduce the occupied space and ensure maximum simplicity and speed during installation phases.

IEEE802.11a/n/ac MiMo 2x2

Mediafeed Plus systems integrate an 802.11a/n/ac 5GHz radio module with integrated MIMO 2x2 sectorial antenna. Thanks to the "Advance Lambda Spread" technology developed by Linkit, this solution allows the optimization of performances offered by 802.11n/ac standards, correctly applying Spatial and Frequency Diversity technology to reach data rate up to 867Mbps.
The single band - high selectivity RF circuits of the 5GHz radio module integrated in Mediafeed Plus, makes it free from interferences.

Optical fiber option

To eliminate high power noise on data LAN cable, Mediafeed series makes available a version with multi-mode optical fiber data connection: MDF2510AC-F. Using optical fiber connection, all the high power noises are cancelled and the performances of Mediafeed device are guaranteed.
Following table shows all Mediafeed Plus versions.

Model	Sectorial Antenna	Data Connection	Standard	Band	Data Rate
MDF8590N	MIMO 90°	LAN	802.11a/n	5 GHz	300Mbps
MDF85120N	MIMO 120°	LAN	802.11a/n	5 GHz	300Mbps
MDF8590AC	MIMO 90°	LAN	802.11a/n/ac	5 GHz	867Mbps
MDF85120AC	MIMO120°	LAN	802.11a/n/ac	5 GHz	867Mbps
MDF8590AC-F	MIMO90°	OPTICAL FIBER	802.11a/n/ac	5 GHz	867Mbps
MDF85120AC-F	MIMO120°	OPTICAL FIBER	802.11a/n/ac	5 GHz	867Mbps

Total protection 16kV—15kA

Mediafeed Plus systems are equipped with protection circuit for ESD coming from Ethernet cable or radio connection. Four dedicate gas arrester, are connected to all the data pairs of Gigabit Ethernet port to protect from current up to 15,000A.

L2MTU

Layer2 maximum L2MTU of the Ethernet Interface is 4076. The equipment is suitable to the needs of professional networks, improving VPN and VoIP traffic performances.

QoS Management

Mediafeed Plus allows comprehensive bandwidth management. Both the upstream bandwidth and the resources available to each client can be monitored, prioritized and limited as required, in order to obtain the desired Quality of Service levels.

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5,6 GHz · IP67 · PoE · QoS · 867 Mbps · MESH · AP · Bri · MiMo · Giga

Serie Mediafeed Plus

Mediafeed Plus is Linkit answer at the WISP and System Integrator growing need to have Base Station equipment with very high reliability and performance, while maintaining a low and extremely competitive cost.
It integrates into a single block, 5GHz 802.11a/n/ac radio module and MiMo sectorial dual polarization antenna with "Advanced lambda Spread" technology.
The simple and essential equipment design with little dimension, permits to install the equipment everywhere and in fast and safe way.

Frequency scan function, with relevant spectrum analysis , permits free channels identification during start-up phase.
Mediafeed Plus equipment are manageable through web interface or dedicate GUI, also via internet.
The equipment can store all the traffic logs regarding access and traffic connection. An FTP server and about 100MByte memory are housed on board to store files and data.
Connection and data security are guaranteed by a WEP key of 104 bit with WPA access control.
Time link worsening as well as latency problem, have been eliminated thanks to a dedicate firmware and hardware project.
Mediafeed Plus is the solution for the development of network dedicated to video, data and VoIP transmission.

Characteristics	MDF8590N	MDF85120N	MDF8590AC	MDF85120AC	MDF8590AC-F	MDF85120AC-F
IEEE Standards	802.11a 802.11n		802.11a 802.11n 802.11ac			
Frequency	5,470 - 5,725 GHz					
Modulation	OFDM (BPSK, QPSK, 16-QAM, 64-QAM)		OFDM (BPSK, QPSK, 16-QAM, 64-QAM - 256-QAM)			
Channel Bandwidth	20MHz - 2x20MHz		20MHz - 2x20MHz - 4x20MHz			
Channel Selection	Manual - Automatic - DFS - Radar Free					
Maximum Output Power	1 W EIRP					
Tx Power Adjustment	20 dB step 1dB					
Wireless Mode	Access Point, Bridge, WDS, Station, Hot Spot					
Data Encryption	WEP 64,128 bit, WPA, WPA2, TKIP, AES-CCM-TKIP, MAC filtering, IP filtering, RADIUS server, Proprietary WDS, Integrated Firewall					
Etehrnet Standard	10/100/1000 Gigabit - Auto-MDI/X - std.802.3					
Optical Characteristics	N.A.				Vedi tab.	
VLAN Support	802.1q - Multiple VLAN interface – Inter VLAN routing					
VPN Support	IPSEC, PPPoE, EoIP, PPTP, L2TP					
QoS Support	802.1p-IPToS RFC791-CBQueuing-PCQ, RED, SFQ, FIFO queue – CIR – MIR - peer-to-peer management					
Network Routing	OSPF – RIP - BGP - STP - RSTP - NAT – MPLS – IPv6 - MME					
Mesh	HWMP+ , proprietary layer 2 wireless mesh routing protocol					
Management	Telnet, SSH, FTP, Proprietary GUI, http, WEB					
L2MTU	4076					
Power Mode	Power Over Ethernet (POE) type					
Power Supply	12 ..... 24V dc 550mA		12 ..... 24V dc 600mA		12 ..... 24V dc 700mA	
Antenna protection	ESD 16kV					
Ethernet Protection	ESD 16kV - 15kA on the 4 pairs of wires					
Operating Temperature	-35° C / + 60°C					
Dimension mm (H x W x D)	285 x 140 x 70					
Weight	1,8 Kg					
Safety Rating	IP67					
Standards	EN301893 EN301489-17 EN60950-1 ERC70-03					

Rx Sensitivity (including antenna gain)

	5GHz
MDF8590N	-109 dbm @ MCS0 20MHz
MDF8590AC	-107 dBm @ MCS0 40MHz
MDF8590AC-F	-90 dBm @ MCS7 20MHz
	-88 dBm @ MCS7 40MHz
MDF85120N	-107 dbm @ MCS0 20MHz
MDF85120AC	-105 dBm @ MCS0 40MHz
MDF85120AC-F	-88 dBm @ MCS7 20MHz
	-86 dBm @ MCS7 40MHz

Antenna Characteristics

	MDF8590N MDF8590AC MDF8590AC-F	MDF85120N MDF85120AC MDF85120AC-F
Type of antenna	Settoriale MIMO 2x2	
Antenna Gain	16dB + 16dB	14,5dB + 14,5dB
Antenna Beamwidth	H: 90°@3dB V: 12°@3dB	H: 120°@3dB V: 12°@3dB
Antenna f/b ratio	>20dB	>20dB

Optical Characteristics

Optical fiber connection is allowed by the integration of an SFP transceiver with the following characteristics

Characteristic	Description
Connector	Dual LC
Optical Fiber Type	Multi Mode
Wavelenght	850nm
Data Rate	1,25 Gbps
Max optical fiber lenght	550 m

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