



MFR-DB-SDR

Configurable Mesh PTZ Optical & Thermal Camera

The MFR-DB-SDR incorporates both optical and thermal cameras in an environmentally sealed rugged PTZ unit.

It incorporates the DTC Software Definable Radio which has a configurable transmission method and encryption standard.

Whilst Mesh transmission method is the first choice, COFDM point to point transmission is also supported as a system option, which operates along side a UHF telemetry module for system control.

The build is modular such that it can be configured to include an optional power amplifier to increase system range and the option to add a battery power source.

It incorporates a Sony HD camera with a 30x optical zoom lens and a 63.7° wide angle of view.

The Flir thermal camera incorporates radiometric technology which delivers high precision temperature monitoring. It supports an 8x digital zoom and spot metering to further optimise the exposure control for each particular scenario.

The transmitted video output can be user switched between either camera as and when required. The zoom is synchronised between the two cameras, up to the maximum FOV capability of the thermal camera. This allows convenient switching between the two camera views.

The pan and tilt axes have absolute position feedback, which allows the camera to self correct its actual position if external forces act upon it. It also supports user presets that can be saved allowing PTZ framing and camera racking profiles to be easily recalled.

The pan and tilt drive trains reduce noise to a minimum with pan speeds up to 100° per second. The outer casing is machined from aluminium, all external mating surfaces are gasket sealed to maintain the IP67 environmental rating.

Overview

Wireless Mesh Network
Configurable Transmission Method
Frequency Band Selectable
Battery Powered Option
Power Amplifier Option
Optical Resolution 1080/30p
30x Optical Zoom
8x Thermal Digital Zoom
Zoom Synchronisation
Radiometric Thermal Technology
Thermal Spot Metering
Position Recall
Encrypted Transmission
IP67 Environmental Rating
Rugged Build



The MFR-DB-SDR can incorporate two additional build options of a dual battery power source, which allows low power batteries to be hot swapped without any interruption to system operation and a 2x1 Watt power amplifier, to improve the RF range.

The two add-on options to the base model leads to the unit being available in four different configurations as shown below.



MFR-DB-SDR-P-B



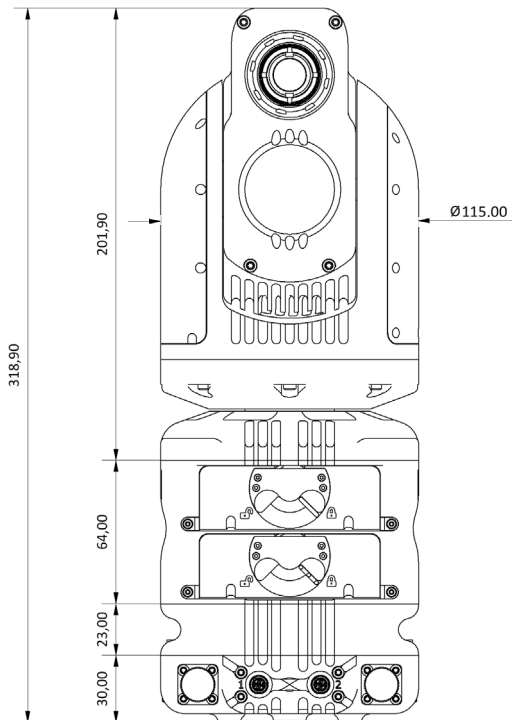
MFR-DB-SDR-P-X



MFR-DB-SDR-X-B



MFR-DB-SDR-X-X



All dimensions are in mm

The sizing of each section is detailed so that the dimensions of each of the four variants can be calculated.

Build Configurations		
Model	PA Included	Battery Power
MFR-DB-SDR-P-B	✓	✓
MFR-DB-SDR-P-X	✓	✗
MFR-DB-SDR-X-B	✗	✓
MFR-DB-SDR-X-X	✗	✗

Specifications			
RF Frequency	L-Band, S-Band, C-Band	RF Power	100mW or 2x1 Watt
RF Type	COFDM Mesh and PtoP	Radiometric Technology	As Standard
RF Sensitivity	-96dBm	Thermal Spot Metering	Enabled
Max Mesh Nodes	16 for a Single System	Pan & Tilt Range	360° Pan , 170° Tilt
Data Capacity	Up to 14.6Mb/s	Battery Capacity	2 x 3.35Ah
Bandwidth	Selectable 2.5 to 10MHz	Input Volts	10-18V DC
Optical Zoom	30x	RF Connectors	N-Type
Optical Resolution	1920 x 1080 Pixel	Comms Connectors	Fischer MiniMax
Thermal Resolution	640 x 512 Pixel	Environmental	IP67
NEdT	< 30mK	Full Build Dimensions	ø115 x 319mm
Encryption	DES, Optional AES 128/256	Casing	Anodised Aluminium

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Product specifications subject to change without notice

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