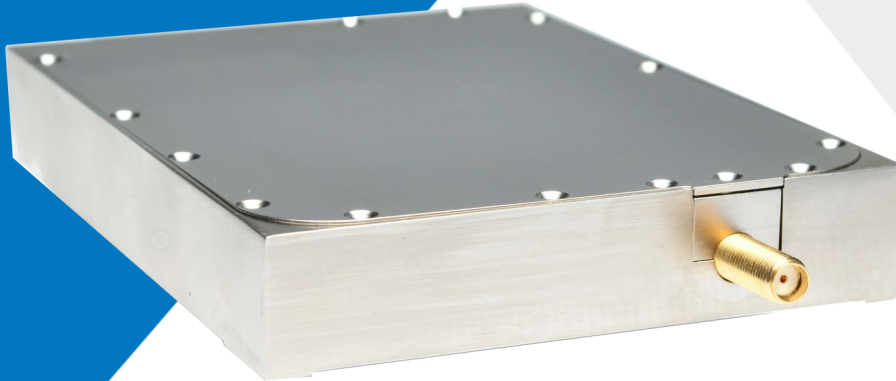


## DR063-M2



### 0.5-2.4GHz Instantaneous Frequency Measurement Unit

The DR063-M2 uses proprietary Teledyne Defence & Space technology to provide state of the art performance in a package measuring 130mm x 90mm x 18mm.

The DR063-M2 provides a 12 bit absolute binary digital output word. The frequency measurement word is updated in response to an external trigger input signal, and internally generated trigger or is continuously updated every clock cycle. These operational modes are controlled via a serial interface.

The 12 bit frequency word offers a nominal resolution of 0.5MHz with an RMS accuracy of 2MHz for SNRs of +3dB or better. The unique feature of the DR063-M2 is the ability to configure the IFM during operation in order to achieve improved frequency resolution and accuracy when capturing longer pulses under poor SNR conditions.

The DR063-M2 has a smaller frequency footprint and lower power consumption than traditional 0.5 – 2.4GHz IFM's. External connections are made via a 51 – way micro-D Type connector for power, frequency measurement data and control. An SMA (female) is provided for the RF input.

#### FEATURES

- Full 0.5 – 2.4GHz
- 12 Bit Resolution
- 60dB Dynamic Range
- 50ns Pulse Width Measurement
- Internally or Externally Triggered
- Very Small Size
- Low Power Consumption
- Software Configurable

#### APPLICATIONS

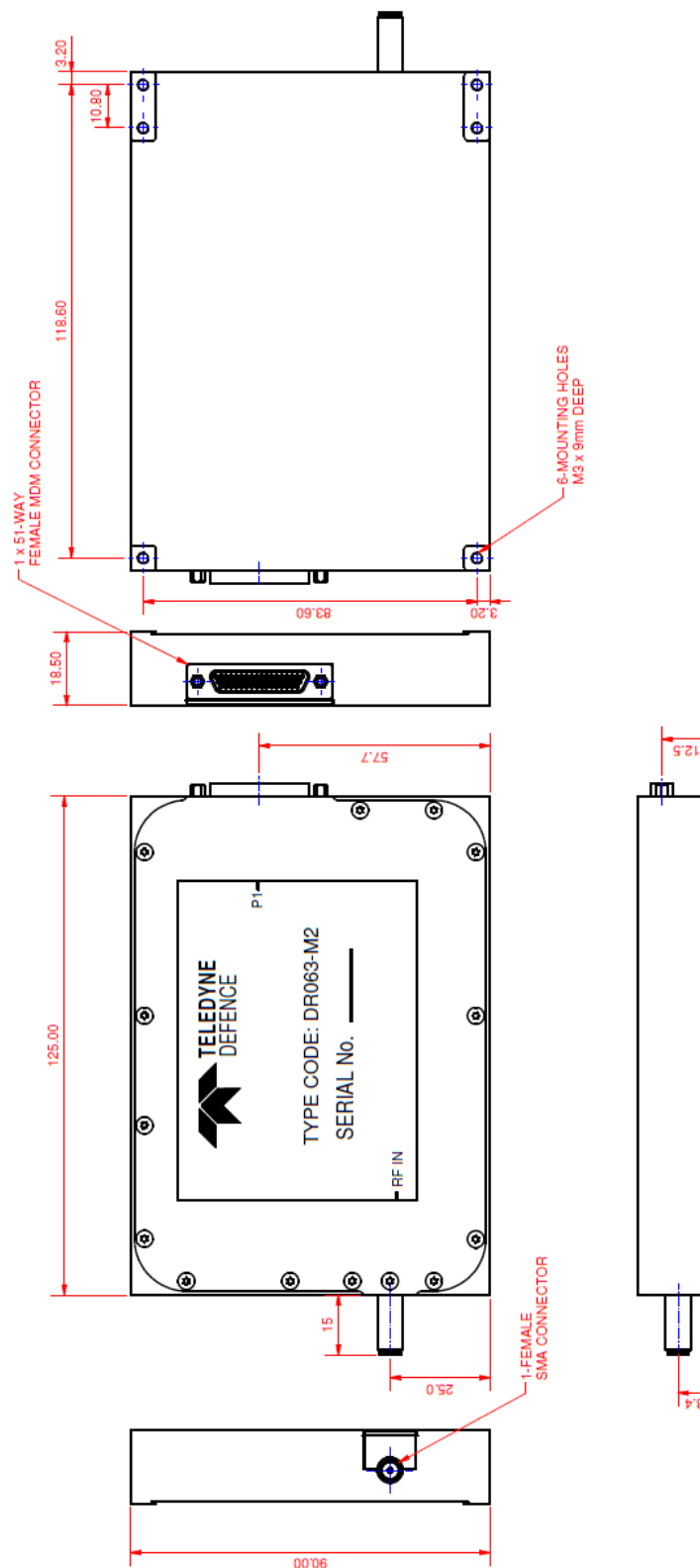
- Electronic Support Measures (ESM)
- Communications Jamming (COMJAM)
- Radar Warning Receivers (RWR)
- ESM for low weight, low power, small or portable payload applications

## Electrical Specification

Parameter	Units	Min	Nominal	Max
Operating Frequency Range	GHz	0.5		2.4
Unambiguous Bandwidth	GHz	0.45		2.45
Frequency Resolution	MHz		0.5	
Digital Frequency Resolution	Bits		12	
System Clock Rate	MHz	49.99	50	50.01
Throughput Time	ns		200	
RF Input Dynamic Range	dBm	-55		5
RF Input Signal/Noise Ratio	dBm	0		
RF Input Pulse Width	ns	50		CW
RF Input VSWR				2:2:1
Frequency Error (RMS)				
0dB SNR	MHz			4
3dB SNR	MHz			2
Frequency Peak Error	MHz		15	
Peak Error Rate				
0dB SNR	%			0.4
3dB SNR	%			0.04
Bad data Error rate				
0dB SNR	%			3
3dB SNR	%			1
Simultaneous Signal: Level	dBc	6		
Simultaneous Signal: Frequency Separation	MHz	50		
Temperature Range	°C	-40		+85
Power Consumption	Watts		7	
Power Supply Current: +5v Rail	mA		500	
Power Supply Current: +3.3V Rail	mA		1300	
Power Supply Current: -5V Rail	mA		60	
Size	Mm		130x90x18	
Weight	g		400	

See restrictions on published datasheets at [www.teledynedefence.co.uk/](http://www.teledynedefence.co.uk/)

## Outline Drawing



See restrictions on published datasheets at [www.teledynedefence.co.uk/](http://www.teledynedefence.co.uk/)

