

RFoF

Transmitter, 100 MHz, DIN Rail, 1 RF IN, 1 FO Out

RFoF1 - 100MHz (TX)

Properties

- low jitter / phase noise
- Excellent stability
- High phase accuracy
- Monitoring functions
- Timing and synchronization
- Low phase noise reference and local oscillator signal distribution
- Radar applications
- Test and measurement

**General data**

Suitable Products	RFoF1 - 100MHz LPN (RX) 85161323
Product family	RFoF low phase transmitter module
Module type	DIN Rail module

Electrical data

Frequency typical	100 MHz
Link gain range	1.5 dB ... 4.5 dB
Link gain typical	3 dB
VSWR	1.9
Nominal input power	1 dBm ... 3 dBm
Nominal input power typical	2 dBm
RF input power damage limit	20 dBm
Supply voltage range	11 V DC ... 16 V DC
Supply voltage typical	12 V DC

Phase noise

Phase noise	Phase noise typical	Phase noise max
10 Hz offset		-130 dBc/Hz
100 Hz offset		-139 dBc/Hz
1 kHz offset		-145 dBc/Hz
10 kHz offset		-149 dBc/Hz
100 kHz offset		-150 dBc/Hz
1 MHz offset	-158 dBc/Hz	-156 dBc/Hz

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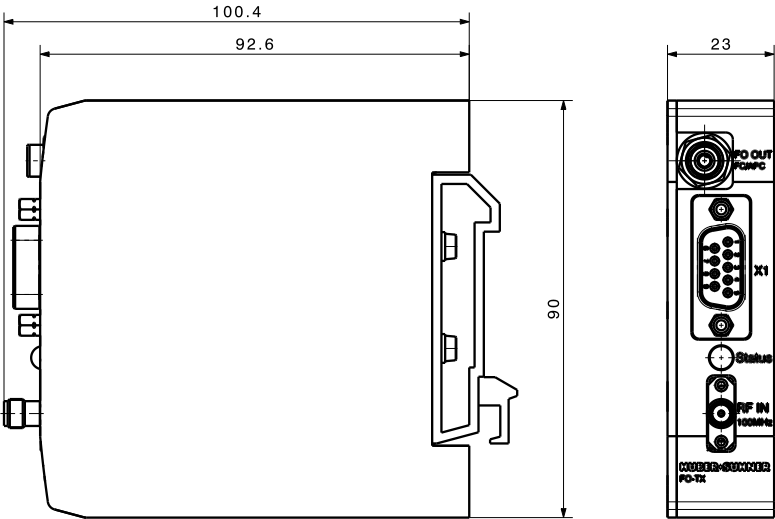
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Phase noise		
Phase noise	Phase noise typical	Phase noise max
10 MHz offset	-158 dBc/Hz	-156 dBc/Hz
Mechanical data		
Weight	0.27 kg	
Dimensions (LxWxH)	90mm x 100mm x 23mm	
Environmental data		
Storage temperature	-40 °C ... 85 °C	
Operation case temperature	-40 °C ... 75 °C	
Optical data		
Optical power - signal min	4 mW	
Optical power - signal max	7 mW	
Side mode suppression ratio typical	40 dB	
Transmitter wavelength typical	1310 nm	
Input of RF connection		
Product family RF connector	SMA	
Gender	Female	
Amount of RF connectors	1 pcs	
RF input impedance	50 Ω	
Output of FO connection		
Product family FO connector	FC/APC	
Amount of FO Connectors	1 pcs	
Fiber type	Singlemode	

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Technical drawing



Connector Pinout				
Pin Number	Signal Description	Signal Direction	Voltage Range	Current
1	Ground	-	-	-
2	+12V DC supply	Input	11V to 16V	< 250 mA
3	Ground	-	-	-
4	Optical power monitor	Output	Vmon= 0.1 ... 0.2 V/mWopt	Max. 2 mA
5	Ground	-	-	-
6	TX optical power alarm	Output	TX (0: no alarm, 1: alarm)	+/- Max. 25 mA
7	Ground	-	-	-
8	PCB temperature	Output	10mV/°C, 750mV@25°C, range: -40 ...+ 125°C	< 50 µA (load)
9	Ground	-	-	-

Ordering Information Table	
Item number	Item description
85161322	RFoF1 - 100MHz (TX)

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