

Sentinel II



The following specifications show the performance of the ORM connected to the OTM with and without the SCM.

FREQUENCY DOMAIN	OTM	SCM + OTM
Bandwidth (-1dB)	2kHz to 1GHz	2kHz to 1GHz 2kHz to 100MHz (HiZ input selected)
Bandwidth (-3dB)	1.2kHz to >1.2GHz	1.2kHz to >1.1GHz 1.2kHz to 100MHz (HiZ input select)

TIME DOMAIN

Risetime	≤ 350ps	≤ 450ps
Linearity	≤ 2% at maximum output	≤ 2% at maximum output

DYNAMIC RANGE

Dynamic Range, 500MHz (See application note AN003 for further details)	56dB (Signalp-p/Noiserms), 1GHz bandwidth 47dB (Signalrms/Noiserms), 1GHz bandwidth 137dB in a 1Hz bandwidth	
Noise Figure, 500MHZ	13dB	16dB (21dB System Gain) 9dB (33dB System Gain)
Noise Power Output (>300kHz)	<-137dBm/Hz	<-137dBm/Hz <-132dBm/Hz with pre-amp
Maximum Output Power	0dBm/630mVp-p	
Second Harmonic Distortion	≤-34dBc for maximum output	
Output P1dB, 500MHz	+4dBm	
Output IP3, 500MHz	+12dBm	

SYSTEM GAIN

Nominal Link Gain	24dB	21dB
Input Signal for maximum output	-24dBm	-21dBm
Selectable Attenuators	n/a	0 to 45dB (relative to nominal gain) in 3dB steps (Only applicable when 50Ω Input selected).
Selectable Pre-amplifier	n/a	Single stage, +12dB gain relative to nominal gain (Only applicable when 50Ω Input selected).
Gain Tolerance @ 500MHz	±1dB	±1dB (21dB gain setting)
Cumulative Gain Tolerance for each additional attenuator and pre-amp stage	n/a	±0.5dB
Passband Flatness	±1.2dB	±1.2dB (21dB gain setting)
Cumulative Passband Ripple for each additional attenuator and pre-amp stage	n/a	±0.5dB

INPUTS AND OUTPUT	OTM	SCM + OTM
Input/Output Impedance	50Ω	50Ω Input, 50Ω Output Switchable to 1MΩ Input, 50Ω Output
VSWR	≤2:1	≤2:1 for 50Ω Input
Transmitter Input Connectors	SMA	
Receiver Output Connector	N-Type	
Max. Continuous DC Voltage on Input	5V	

BATTERY PACK

Battery Type	14.4V, Rechargeable NiCad
Battery Operating Time	>6hours continuous, >100hours standby (standard) >10 hours continuous, >150hours standby (high capacity)
Battery Dimensions (L x W x H)	190x23x90mm (standard), 190x40x90mm (high capacity)
Weight	0.8kg (standard), 1.2kg (high capacity)

MISCELLANEOUS

Operating Temperature Range	-10 ⁰ C to +40 ⁰ C	
Transmitter Dimensions	190x27x90mm (LxWxH)	190x55x90mm (LxWxH)
Weight	0.7kg	1.2kg
ORM Interface	Folnet Compatible	Folnet Compatible
Folnet Controller Functions	Calibrate	Tx On/Off, Gain Select, 1MΩ Select, Input Select, Calibrate
ORM Indicators	Optical Carrier Status, Module Selected	

FIBRE OPTIC CABLE & CONNECTORS

Fibre Optic Connectors	LEMO
Cable Diameter	6mm
Minimum Bend Radius	50mm
Cable Lengths	50m, 100m, 200m, and above
Operating temperature	-20 ⁰ C to +50 ⁰ C