

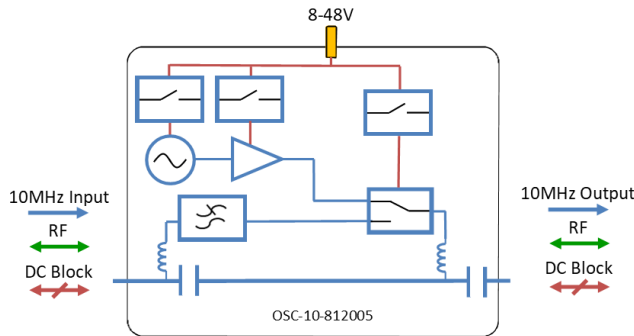


RF Components

10 MHz Redundant Oscillator

850 - 2150 MHz

Model Number:
OSC-10-812005



- Internal 10 MHz Ovenised Oscillator
- Automatically switches to internal 10MHz when external reference is not present (threshold is 0dBm)
- Selectable output power for internal oscillator
- Option to force internal 10MHz
- Requires 8-48V. External DC

Available with RF connector options:

- 50 Ω SMA
- 50 Ω N-type
- 50 Ω BNC
- 75 Ω BNC
- 75 Ω F-type

8-48V
External DC
powering



850-2150 MHz
Operating frequency
range.

Compact
Housed in
rugged compact
enclosure

RF Parameters						
OSC-10-812005	S5S5	N5N5	B5B5	B7B7	F7F7	
Frequency Range	850 - 2150 MHz					
RF Connectors	50Ω SMA	50Ω N-Type	50Ω BNC	75Ω BNC	75Ω F-Type	
Insertion Loss (dB)	Typ.	0.5	0.5	0.5	0.7	0.7
	Max.	1.0	1.0	1.0	1.0	1.0
Flatness ± (dB)	0.25	0.25	0.3	0.4	0.5	
Return Loss L-band port (dB)	Typ.	16	16	14	10	10
	Min.	10	10	10	8	8
Return Loss Multiplexed port (dB)	Typ.	15	15	12	10	10
	Min.	10	10	10	8	8

Broadcast



Marine Oil & Gas



SNG & VSAT



Satellite Teleport





RF Components

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10 MHz Redundant Oscillator

Technical specifications and operating parameters

Environmental		
Operating Temperature		0°C to +55°C
Storage Temperature		-20°C to +75°C
Location		Indoor use Only
Humidity	Max	85% non-condensing
Altitude	Max	10,000 feet

Max Operating Parameters		
Input RF Power	Max	+36 dBm
Input 10MHz Power	Max	+10 dBm
DC Voltage	Max	55V
DC Current	Max	3A

! Operation beyond these limits may cause instantaneous and permanent damage.

Internal 10MHz Phase Noise Characteristics (dBc/Hz)	
1Hz	<-85
10Hz	<-115
100Hz	<-140
1000Hz	<-150
10000Hz	<-155

Internal 10MHz Source Characteristics		
Frequency Setting	10,000,000 ±10 MHz	
Level (dBm)	0, 5, 10 or 15 ±1.5	
Output Type	Sinewave	
Harmonic Rejection	2nd	>50 dB
	3rd	>40 dB
	4th	>45 dB
	5th	>60 dB

Internal 10MHz Oscillator Characteristics	
Frequency Stability	
Over temperature	< ± 3x10 ⁻⁸ (Warm up time at 25°C < ± 1x10 ⁻⁷ is less than 2 minutes)
Short Term Stability (per second)	< ± 1x10 ⁻¹¹
Load change	< ± 5x10 ⁻⁹
Over Time (per year)	< ± 5x10 ⁻⁸
Stability with Aging	
Per Day	< ± 2x10 ⁻⁹
Per Year	< ± 5x10 ⁻⁷

Table of Operations

Switch Functions		
Switch	Function	
	Closed	Open
SW1	+5 dB Gain	No Gain
SW2	+10 dB Gain	No Gain
SW3	Auto-switch Reference	Use Internal Reference
SW4	Internal Reference ON	Internal Reference OFF

Note: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved specification accuracy.

ETL SYSTEMS LIMITED
Coldwell Radio Station
Madley
Hereford
England HR2 9NE

TELEPHONE
+44 (0)1981 259020

EMAIL
info@etlsystems.com

FACSIMILE
+44 (0)1981 259021

WEB
www.etlsystems.com

