

Indoor C to L-band Down Converter

SCMDC42001NN10-RM

(Rev.01)

Features

- ◆ Low cost
- ◆ Extra low phase noise
- ◆ 25dB gain control range in 0.1 dB step size
- ◆ Monitoring & Controlling Via RS232 Interface
- ◆ Monitoring & Controlling Via Ethernet
- ◆ Unit in standard 19" Rack Mountable 1U chassis

RF Specifications

Input Characteristics

Frequency	3400-4200MHz
Impedance	50Ω
VSWR	1.3:1 maximum
L-band input connector	N type female

Output Characteristics

Frequency	950-1700MHz
Impedance	50Ω
VSWR	1.3:1 maximum
Output power (P1dB)	+10 dBm
Output connector	N type female

Channel Characteristics

Frequency sense	Inverting
Image rejection	60 dB minimum
Conversion gain	40 dB nominal
Gain flatness over frequency	
Over full band	±1.5 dB
Over 36 MHz	±0.5 dB
Gain stability over temperature	±1dB max
Inter modulation (Two tones at combined output power of 0dBm)	-50dBc
Noise figure	12 dB (@ max gain)
Spurious	
In-band signal related	<-60 dBc @ max gain



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In-band Signal independent <-60 dBm @ max gain

LO Characteristics

LO Frequency	5150MHz
Phase Noise (With internal reference)	
Frequency Offset	Phase noise
100Hz	-63 dBc/Hz
1 KHz	-73 dBc/Hz
10 KHz	-83 dBc/Hz
100 KHz	- 93 dBc/Hz
1MHz	-103 dBc/Hz

10MHz Reference

Internal 10MHz reference stability	+/-5 ppb over operation temperature
Internal/External reference	Auto Selection
External reference Level	-5 to +5 dBm
External reference in connector	BNC female

Monitoring and Controlling

Interface	
Local	Front panel LCD display, Key pad control
Remote	RS232/RS485, DB9 (Option: Ethernet, RJ45)
Gain control	20dB range in 0.5dB step size
Output control	Manual On/Off, auto off when LO is unlock
Redundancy	Auto/Manual

LED Indicators on front panel

Power	Power on : Green LED
Alarm	LO unlock: Red LED
Redundancy	Auto: Green LED
Local/ Remote	Local: Green LED

Power Supply

Operating voltage	100~240 VAC, 47 ~ 53Hz
Power consumption	30w Typical
Input connector	Three pin plug with EMI filter



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Environmental Conditions

Operating temperature	-10°C to +50°C
Relative Humidity	Up to 95%

Mechanical

Dimensions	19" Rack Mountable 1U; Depth: 430mm Max.
Weight	4.5kg Typ.
Color	Light Grey

