

# Indoor S-band/70MHz 3-channel Down Converter

## SCMDC31001NN10-RM (Rev.01)

### Features

- ◆ Three channels using common LOs, with two output ports per channel
- ◆ 2200 MHz to 2300 MHz input frequency range with 1 KHz step size
- ◆ 0-30 dB gain control with 0.5 dB step size
- ◆ Monitoring & Controlling Via Ethernet
- ◆ Ext. 5/10/100 MHz reference auto Selection
- ◆ RF Specifications



### RF Specifications

#### Input/Output Characteristics

No. of Channels	3
No. of Outputs	2 /Channel, 6 totally
Isolation between Outputs	50dB Min. for same channel; 60dB Min for two different channels
No. of Inputs	3
Isolation between Inputs	60dB Min.
Conversion type	Dual conversion, no spectrum inversion
Frequency step size	1KHz
Input frequency	2200 – 2300 MHz
Output frequency	70MHz
Output 3-dB Bandwidth	+/-20MHz
LO Monitoring Interface	SMA female
Input / Output Interface	N type female
Input / Output Impedance	50 ohm



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Input / output Return Loss 18dB MIN.

### External Reference

Ext Reference Internal/External Reference Auto Detection  
Reference Frequency 5/10/100MHz auto detection  
Level -3 ~+3 dBm

### Channel Characteristics

Max Gain 30 dB  
Gain adjustment 30dB, 0.5db step size  
Gain flatness (full band) +/-1dB Max.  
Gain flatness (BW +/-20MHz) +/-0.4 dB Max.  
Output Level Stability +/- 0.5 dB over day at constant temp.  
Noise Figure 10 dB max. at max. gain; 12 dB typical at 10 dB lower gain  
Image Rejection 60 dB Min  
Spurious (Signal related) -60dBc Max.  
Spurious (Signal Independent) -80dBm Max.  
LO Leakage -60dBm Max.  
Output P1dB 10dBm Min  
Frequency stability +/-20 ppb over operation temp.  
Phase noise  
@ 100Hz offset -80dBc/Hz Max.  
@ 1kHz offset -90dBc/Hz Max.  
@ 10kHz offset -100dBc/Hz Max.



# Indoor S-band/70MHz 3-channel Down Converter

**SCMDC31001NN10-RM (Rev.01)**

@ 100kHz offset

-103dBc/Hz Max.

## Power Supply

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**Voltage** 100~240 VAC, 47 ~ 53Hz  
**Power Consumption** 50w Typ.

## Environmental Conditions

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**Operating temperature** 5°C to +45°C  
**Relative Humidity** Up to 95%

## Mechanical

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**Dimensions** 19" Rack Mountable 1U; Depth: 430mm Max.  
**Weight** 3kg Typ.  
**Color** Light Grey

