

**2 Channel S-Band Down Converter**

- **LOW PHASE NOISE**
- **FINE FREQUENCY STEP**
- **LOW INTERMODULATION DISTORTION**
- **DUAL CONVERSION**
- **BUILT-IN HIGH STABILITY INTERNAL REFERENCE**
- **HIGH RELIABILITY**
- **REMOTE / LOCAL CONTROL**

This double conversion down converter is intended for use in professional applications in S band such as satellite earth stations. The 2 inbuilt channel modules allow to serv 2 individual downlink path in one commonr unit. BMCD126 includes high performance down converter modules with low noise local oscillators, microprocessor based monitor and control circuitry, a front panel with control keys and status display and own AC / DC power supply. BMCD126 can be controlled from the front panel (manual control) and via Ethernet (remote control).

**Electrical characteristics:**

<b>RF Frequency input characteristics</b>	
No. of channels	2
Frequency	2200 to 2300 MHz
Frequency step	1kHz
Impedance	50 Ohm
Input return loss	>15 dB
Input level	-65 to -35dBm nominal, +5dBm abs. max.
Connector	SMA Female
<b>Intermediate output characteristics</b>	
Number of outputs	2 per channel
Frequency	70 MHz
IF bandwidth	± 10 MHz typ.
Impedance	50 Ohm
Output return loss	>18 dB
Amplitude unbalance between channel outputs	± 0.5 dB max.
Isolation between same channel outputs	25 dB typ., 20 dB min.
Connector	SMA Female
<b>Transfer characteristics</b>	
Type	Dual conversion
Conversion sense	No inversion
Gain	35 dB typ.
Gain flatness in any 10 MHz	0.5 dB max
Gain stability @ constant temperature	+/-0.5dB/day
Gain adjustment	0 to 30 dB range in 0.5dB step
Output power (P <sub>1dB</sub> )	+10 dBm min.

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**Datasheet Ver. 1.2 / 20200127**

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Spurious output	signal related: -60 dBc max @ 0dBm output, signal independent: -75 dBm max.,
Image rejection	65 dB min.
Channel to channel isolation	80 dB typ., 70 dB min.
Noise figure	8 dB typ. @ max..gain
Third order intercept point	23 dBm typ, 20 dBm min.
Channel to channel differential gain	0.2dB typ., 0.5 dB max.
Phase unbalance between channels	< 3°, over temperature range
Phase noise (typical value)	-83 dBc/Hz @ 100 Hz -98 dBc/Hz @ 1 kHz -100 dBc/Hz @ 10 kHz -105 dBc/Hz @ 100 kHz
Frequency stability	better than ±0.02 ppm@full temp range
Group delay stability	3 ns typ., 5 ns max.
Local leakage	< - 70 dBm
External reference	5 or 10 MHz auto selection, -6 to +6 dBm typ. Int../Ext. ref. automatic change-over
LO1 and LO2 signal monitor	-10 dBm typ. SMA female connectors on front panel
RF sample	-10dB +/- 1dB, SMA female connectors on front panel
Manual control	Display with functional keys in the front panel
M&C interface	TCP / IP
Controlled parameters	Gain (per channel), Frequency, Frequency step, Memory
Power line supply	230 V AC ± 10%, 50 Hz ± 6% , 32W max.
Physical dimension	19", 2U height
Operating temp.	0 ~ 50 deg C
Weight	6.8 kg.

Specifications are subject to change without notice.