SPARK
Miniature Low Power BUCs

Belcom's SPARK series of low power BUCs have been trusted by the world's largest VSAT companies for over 20 years and has a proven reputation for reliability.
Built to be robust and reliable, SPARK BUCs are rugged enough to withstand extreme outdoor conditions. Belcom's high-level development experience and its large volume manufacturing capabilities, provide clients with unmatched cost savings.

SPARK products are covered by a full two-year warranty and are backed by a dedicated service team that ensures a full repair cycle within no more than 21 days.

SPARK Highlights

- Available in C, Extended C and Palapa bands
- NEW! BLWC BUCs covering Standard C and Palapa bands
- Output power: 1W, 2W, 3W, 5W, 8W
- Covered by a full two-year warranty plan
- Guaranteed 21-day repair cycle
- Low power consumption
- Lightweight - 1.85 Kg

SPARK Models Overview

Model	Output Power (W)		Nominal Gain	Power Consu	Dimensions
	(W)	(dBm)	(dB)	(W)	(L x W x H, mm)
mBLX-1	1	30	53	16	215.8 x 135.8 x 53.0
mBLX-2	2	33	55	28	215.8 x 135.8 x 53.0
NEW! mBLX-2-LP	2	33	55	**16**	215.8 x 135.8 x 53.0
mBLX-3	3	34.5	55	28	215.8 x 135.8 x 53.0
mBLX-5	5	37	58	44	215.8 x 135.8 x 53.0
mBLX-8	8	39	60	55	215.8 x 135.8 x 61.5

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Electrical

Input impedance			75Ω (50Ω optional) Input	
VSWR		2:1		
Available Bands				NEW!
	C-Band	**Ext.C**	**Palapa**	**Wide C**
Input frequency	950-1525MHz	975-1275MHz	1075-1435MHz	950-1825MHz
Output frequency	5.85-6.425GHz	6.725-7.025GHz	6.365-6.725GHz	5.85-6.725GHz
L.O frequency	4.900GHz	5.750GHz	5.290GHz	4.900GHz
Output power (at 1 dB GC)		See Table overleaf		
Gain (Nominal)		See Table overleaf		
Gain Flatness				
	Over any 1 MHz band		±0.2 dB max	
	Over any 36 MHz band (25°C)		±0.75 dB max	
	Over full Band		4 dB PTP max	
Gain stability over temerature (at constant frequency)			4 dB PTP max	
Reference signal - External 10MHz			-10dBm to +7dBm	
Spectrum sense	Non Inverting (Inverting-Option)			
Frequency accuracy (PPM)		Same as Reference		
Phase Noise				
	At 1 KHz offset		75 dBc/Hz	
	At 10 KHz offset		81 dBc/Hz	
	At 100 KHz offset		95 dBc/Hz	
Leakage and Spurious Signals (Up to 1dB compression point)				
	In-band		-55 dBc max, -60dBc typical	
	Harmonics		-20 dBm max	
	In RX band		-140 dBm/4KHz max	
	Wideband noise in RX band		-160 dBm/Hz max	
	3rd order intercept point (IP3)		P1dB+ 7 dB min	
Stability	The unit will not oscillate under any condition of load, temperature or DC supply.			
Protection				
	-Thermal runaway protection			
	-No damage by any combination of load reflections			
	-DC supply spike protection			
	-Missing 10MHz reference shuts transmitter to -60dBc min			
Power supply voltage (at the input of the BUC)			+15 to +26V DC	
Power consumption	See table overleaf			

Specifications are subject to change without prior notice

Environmental

Operating Temperature	-40°C to +60°C
Sealing	IP 54
Vibration	5-350Hz 0.0015g2/Hz 350-500Hz -6dB/oct 500Hz 0.00074g2/Hz
Shock	10g @ 10m s(half sine)

Mechanical

(See detailed outline drawing in Belcom Microwaves website)

IF + DC + reference input.	F type (female) (N type optional)
RF output	CPR137 grooved
Weight	1.85 Kg (1, 2, 5W) 2.1 Kg (8W)
Finish	White polyurethane

How To Order

mBLX-P-C

X- Frequency Band

C- C Band
PA- Palapa
IN- Ext. C (Insat)
WC-Wide C (Standard C and Palapa)

P- Output power @ 1 db GC

1 - 1W
2 - 2W
3 - 3W
5 - 5W
8 - 8W

C - Input Connector

F- F type (f) Standard
N- N Type (f) Optional

Special configurations are available