



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 (dB)	Power Consumption (W)	Dimensions (L x W x H, mm)
	(W)	(dBm)			
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

Electrical

Input impedance 75Ω (50Ω optional) Input

VSWR 2:1

Available Bands

	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

NEW!

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 temperature (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