



Belcom Microwave's FLAME series of medium power BUCs provides a groundbreaking solution for increased speed and bandwidth.

The FLAME series was crafted with 20 years of engineering experience and is backed by a dedicated support team.

The Belcom team incorporates innovative design with efficient, high turnover manufacturing processes to provide top-caliber products with impressive lead times.

Designed to be simple and robust, FLAME series delivers top performance and is cost effective and reliable.

FLAME Highlights

- Competitive pricing
- Output power: 10W, 20W, 25W, 40W, 50W
- Available in C, Extended C and Palapa Bands
- **NEW!** BLWC BUCs covering Standard C and Palapa bands
- Covered by a full three-year warranty plan
- 21 day repair cycle guarantee
- Operating Voltage: AC or DC
- Operating temperatures: -40°C to +55°C
- Synthesized L.O.

FLAME Models Overview

Model	Output Power (W)	Operating Voltage	Nominal Gain (dB)	Power Consumption(W)		Weight(Kg)		Dimensions (L x W x H, mm)
				DC	AC	DC	AC	
BLX-10	10	48V / 24V	60	80	NA	6.5	NA	268x212x110
BLX-20	20	48V / AC	63	170	185	7.0	10.2	DC: 268x212x110, AC:268x228x195
BLX-25	25	48V / AC	63	220	240	7.0	10.2	DC: 268x212x110, AC:268x228x195
BLX-40	40	48V / AC	66	380	400	11.5	11.5	268x228x245
BLX-50	50	48V / AC	67	380	400	11.5	11.5	268x228x245

(See detailed outline drawing in Belcom Microwaves website)

Electrical

Input impedance	50Ω			
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
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	±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			
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)				
	DC	37-60V (18-30V optional)		
	AC	90-250V (50-60 Hz)		
	Power consumption	See table overleaf		



Mechanical

IF + reference input.	N type (female)
RF output	CPR137 grooved
Weight	See table overleaf
Finish	White polyurethane paint

Specifications are subject to change without prior notice

Environmental

Operating Temperature	-40°C to +55°C
Sealing	Moisture sealing by O-ring Weather-proof
Vibration	5-350Hz 0.0015g ² /Hz 350-500Hz -6dB/oct 500Hz 0.00074g ² /Hz
Shock	10g @ 10m s (half sine)

How To Order

BLX-P-V-D-C

X- Frequency Band

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

P- Output Power

- 10 - 10W
- 20 - 20W
- 25 - 25W
- 40 - 40W
- 50 - 50W

V- Operating Voltage

- 24 - 18-30V (10W only)
- 48 - 37-60V
- AC - AC

D- Input Power Connector

- I- DC Supply via IFL Cable
- E- DC/AC via external connector

C- M&C Option

- Blank -No M&C (Standard)
- C- M&C via Ext. Connector (RS-485) (Optional)