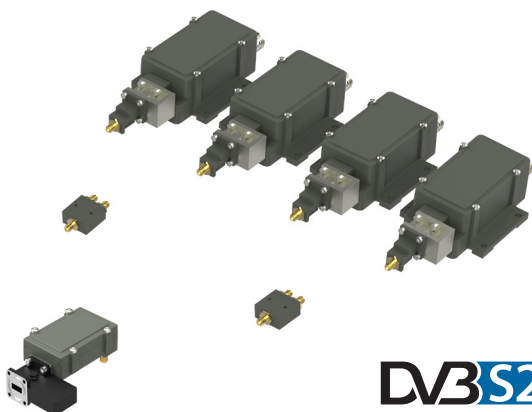


Quad PLL System

Receives four Ka-Bands simultaneously


DVB-S2X

The Ka-Band Systems consists of Ka LNA Wideband with waveguide isolator, Ka splitters, Ka BDCs with waveguide isolators and matched Ka cables. Comes standard with Low Phase Noise to meet DVB-S2X Professional services profile.

Options include customized LO, customized frequency ranges, customized gain, separate DC power input and separate input for the external 10 MHz reference.

Features

- **NEW!** Optional Alarm output and M&C interface
- Auto switching LO ref: Internal / Ext. 10 MHz
- Wide frequency range
- Low Phase Noise
- High P1dB and IP3
- Wide operating temperature range

TECHNICAL SPECIFICATIONS

MODEL:	Quad Band System 17.30 - 22.10 GHz				Quad Band System 17.30 - 22.30 GHz			
Input Frequency	17.30-18.50 GHz	18.50-19.70 GHz	19.70-20.90 GHz	20.90-22.10 GHz	17.30-18.55 GHz	18.55-19.80 GHz	19.80-21.05 GHz	21.05-22.30 GHz
LO Frequency	16.35 GHz	17.55 GHz	18.75 GHz	19.95 GHz	16.35 GHz	17.60 GHz	18.85 GHz	20.10 GHz
Output Frequency	950-2150 MHz	950-2150 MHz	950-2150 MHz	950-2150 MHz	950-2200 MHz	950-2200 MHz	950-2200 MHz	950-2200 MHz
Gain	60 dB typ. (55 dB min.)							
Flatness	±0.4 dB max. within 30 MHz ±2 dB max. over each band							
Noise Figure / Noise Temperature	1.8 dB / 149 K typ.							
Phase Noise	-35 dBc @ 10 Hz -65 dBc @ 100 Hz -80 dBc @ 1 kHz -85 dBc @ 10 kHz -95 dBc @ 100 kHz -112 dBc @ ≥1 MHz typ.							
Image Rejection	30 dB min.							
Output P1dB	+15 dBm typ.							
Output IP3	+25 dBm typ.							
Output VSWR	1.7:1 typ.							
Output Connector	F-type 75Ω / N-type 50Ω / SMA-type 50Ω							
Input LNA	Waveguide WR 42 / R 220. Flange PBR 220.							
Input BDC	SMA-type 50Ω							
Input VSWR LNA	1.35:1 max. with isolator (included)							
LO Leakage	-60 dBm @ RF input							
Internal Ref. Stability	Auto switch Ext. 10 MHz ref. / Internal ±2.5 ppm							
External 10 MHz Ref.	Sine wave, Level: -10 to +10 dBm. Supplied through output connector							
DC Input BDC	nom. +12 to +24 V, Supplied through output connector							
Power BDC	5 W typ.							
Dimensions BDC	178 x 80 x 46 mm (F- & SMA-connector) 184 x 80 x 46 mm (N-connector) (for drawing, see www.smw.se)							
Weight BDC	399 g (F- & SMA-connector) 418 g (N-connector)							
DC Input LNA	nom. +12 to +24 V / 110 mA typ. Supplied through separate SMA connector (bottom side)							
Power LNA	1.32 W @ 12VDC 2.64 W @ 24VDC typ.							
Dimensions LNA	100 x 47 x 34 mm (for drawing, see www.smw.se)							
Weight LNA	160 g, inclusive isolator							
Temperature Range	Storage and operating: -40 to +80°C							
Optional Alarm BDC	Interface: Separate M8-connector (B), Open collector, Open on fault, 3.3 to 24 V, max. 200 mA Available Alarms: LO not locked, Total current consumption, Power detector outside limits, RF level outside limits							
Optional M&C BDC	Via MODBUS RTU RS485 electrical interface, see sep. document for details. NOTE! Mates with M8 male connector. Cable: shielded min. CAT 5							
Other options	Customized LO frequencies, input and IF ranges, gain and variation, Sep. 10 MHz ref. input (SMA), Sep. DC input (SMA)							

SEE THE RF OVER FIBER AND L-BAND SECTIONS FOR OUTPUT OPTIONS

Rev.08-21-5G

Above parameters are generic product family values. For part number specific min./max. values, please consult us.

Specifications are subject to change without notice. Products from Swedish Microwave AB are made for commercial use.

Quad PLL System cont.

Example Ka-Band QUAD System configurations					
P/N (x = connector type F, N or SMA)	Frequency range (GHz)	BDC	LO	Ka-band (GHz)	L-band (MHz)
55769x-V02 Autoswitch ext. 10 MHz / ± 2.5 ppm	17.20 - 21.20	1	16.25	17.20-18.20	950-1950
		2	18.25	19.20-20.20	950-1950
		3	17.25	18.20-19.20	950-1950
		4	19.25	20.20-21.20	950-1950
55771x-V02 Autoswitch ext. 10 MHz / ± 2.5 ppm	17.30 - 22.10	1	16.35	17.30-18.50	950-2150
		2	18.75	19.70-20.90	950-2150
		3	17.55	18.50-19.70	950-2150
		4	19.95	20.90-22.10	950-2150
55772x-V02 Autoswitch ext. 10 MHz / ± 2.5 ppm	17.30 - 22.30	1	16.35	17.30-18.55	950-2200
		2	18.85	19.80-21.05	950-2200
		3	17.60	18.55-19.80	950-2200
		4	20.10	21.05-22.30	950-2200
55775x-V02 Autoswitch ext. 10 MHz / ± 2.5 ppm	17.70 - 21.20	1	16.75	17.70-18.60	950-1850
		2	17.65	18.60-19.50	950-1850
		3	18.55	19.50-20.40	950-1850
		4	19.45	20.40-21.20	950-1850
55776x-V02 Autoswitch ext. 10 MHz / ± 2.5 ppm	17.70 - 21.90	1	16.75	17.70-18.75	950-2000
		2	18.85	19.80-20.85	950-2000
		3	17.80	18.75-19.80	950-2000
		4	19.90	20.85-21.90	950-2000
55773x-V02 Autoswitch ext. 10 MHz / ± 2.5 ppm	17.70 - 21.70	1	16.75	17.70-18.90	950-2150
		2	19.15	20.10-20.90	950-1750
		3	17.95	18.90-20.10	950-2150
		4	19.95	20.90-21.70	950-1750
55783x-V02 Autoswitch ext. 10 MHz / ± 2.5 ppm	18.20 - 22.00	1	17.25	18.20-19.40	950-2150
		2	19.15	20.10-21.20	950-2050
		3	18.05	19.00-20.20	950-2150
		4	19.95	20.90-22.00	950-2050

NOTE:

x = 0 for F connector

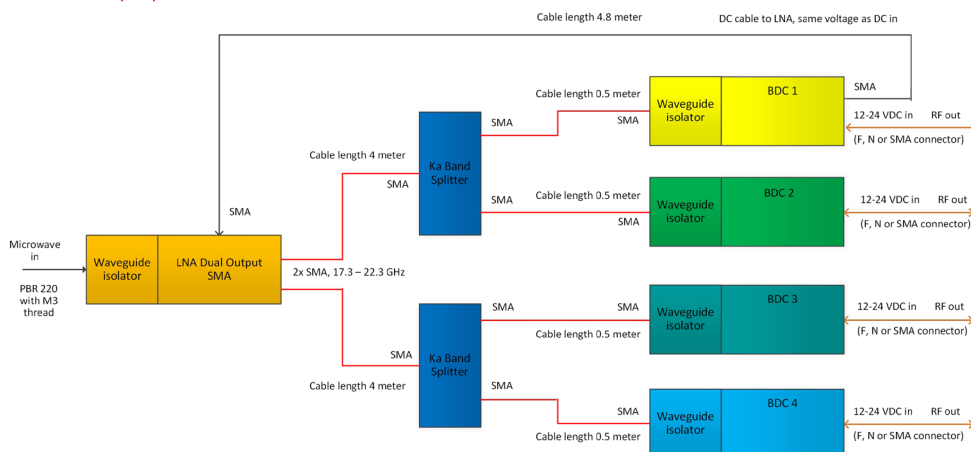
x = 5 for N connector

x = 8 for SMA connector

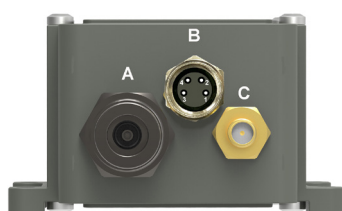
Ka Quad Band system

NOTE1: Cable lengths are fixed due to best performance of this system. If other cable lengths are needed, please contact us first. Read our Product catalogue for more technical details.

NOTE2: Frequency bands are not in order for BDC 2 & 3.



BDC rear connectors



Connector B (opt.)



- 1 = Alarm. open coll.
- 2 = A pos+, RS485
- 3 = B neg-, RS485
- 4 = Common (GND)
- 5 = Shield

5 SHIELD

Connector A (standard)

Type: N-f, (option F-f or SMA-f)
 Functions: L-Band out, DC in,
 External 10 MHz in

Connector B (optional)

Type: M8 female, 4 pin,
 A coded
 Functions: Alarm and M&C

Connector C (optional)

Type: SMA-f only
 Functions: Ext. 10 MHz in
 or DC input

Above parameters are generic product family values. For part number specific min./max. values, please consult us.

Specifications are subject to change without notice. Products from Swedish Microwave AB are made for commercial use.

Rev.08-21-5G