

# Signal Sources Catalogue 2015/1







# Signal Sources

## Table of Contents

### Fixed Frequency

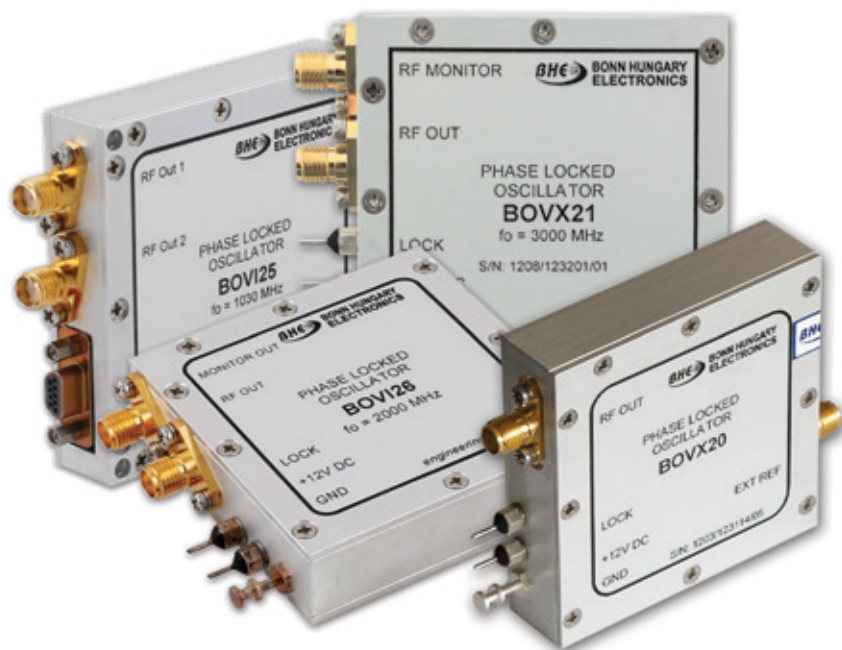
Low noise PLO	6
Multiple outputs fixed frequency synthesizer	9

### Frequency Synthesizers

Band specific: VHF, L, S, C, X, Q, Ka	12-18
Wideband	18-19
Fast Switching Synthesizers	20



# Fixed Frequency Signal Sources



# Signal Sources Catalogue

## 2015/1

### Fixed frequency signal sources

#### Low noise PLO



Model	Frequency	Type	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Power supply	Temp. range	Features	Size
BOVI30	189,5MHz	PLO	+17dBm	+/-0.9ppm	-98/1kHz, -115/10kHz, -137/100kHz	+12V/110mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVI16	334,4MHz	PLO	+4dBm	+/-0.9ppm	-106/100Hz, -121/1kHz, -122/10kHz	+12V/270mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVI15	409,5MHz	PLO	+4dBm	+/-0.9ppm	-95/100Hz, -117/1kHz, -122/10kHz	+12V/250mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVI17	474,4MHz	PLO	+4dBm	+/-0.9ppm	-94/100Hz, -115/1kHz, -118/10kHz	+12V/250mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVI19	491,4MHz	PLO	+7dBm	+/-0.9ppm	-94/100Hz, -115/1kHz, -118/10kHz	+12V/250mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVI20	790MHz	PLO	+11dBm	+/-0.9ppm	-92/1kHz, -110/10kHz, -132/100kHz	+15V/70mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVI14	940MHz	PLO	+4dBm	+/-0.9ppm	-92/100Hz, -117/1kHz, -121/10kHz	+12V/220mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVX31	1000MHz	PLO with Ext. Ref.	+7dBm	10MHz Ext. Ref.	-100/100Hz, -120/1kHz, -134/10kHz	+12V/110mA	-20 to +60 C	small size, very low noise	57x57x15mm
BOVI25	1030MHz	PLO	+10dBm	+/-0.5ppm	-89/100Hz, -104/1kHz, -120/10kHz	+12V/120mA	-40 to +80C	DPSK modulated PLO, small size, low noise	60x60x14mm
BOVI29	1320MHz	PLO	+10dBm	+/-0.9ppm	-105/1kHz, -108/10kHz, -136/100kHz	+12V/70mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVX25	1650MHz	PLO with Ext. Ref.	+10dBm	100MHz Ext. Ref.	-97/100Hz, -107/1kHz, -110/10kHz	+12V/160mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVX23	1670MHz	PLO with Ext. Ref. 3 RF outputs	+8dBm / Output	100MHz Ext. Ref.	-97/100Hz, -107/1kHz, -110/10kHz	+12V/165mA	-20 to +60 C	small size, low noise, 3 RF Outputs	90x57x15mm



# Signal Sources Catalogue

## 2015/1

Model	Frequency	Type	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Power supply	Temp. range	Features	Size
BOVX24	1830MHz	PLO with Ext. Ref.	+10dBm	100MHz Ext. Ref.	-95/100Hz, -105/1kHz, -110/10kHz	+12V/170mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVX27	1970MHz	PLO with Ext. Ref.	+10dBm	100MHz Ext. Ref.	-95/100Hz, -105/1kHz, -110/10kHz	+12V/170mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVX32	2000MHz	PLO with Ext. Ref.	+7dBm	10MHz Ext. Ref.	-93/100Hz, -113/1kHz, -127/10kHz	+12V/110mA	-20 to +60 C	small size, very low noise	76x57x15mm
BOVI26	2000MHz	PLO	+10dBm	+/-0.9ppm	-106/1kHz, -114/10kHz, -132/100kHz	+12V/180mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVX26	2300MHz	PLO with Ext. Ref.	+17dBm	100MHz Ext. Ref.	-98/100Hz, -107/1kHz, -118/10kHz	+12V/150mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVX28	2320MHz	PLO with Ext. Ref.	+10dBm	100MHz Ext. Ref.	-93/100Hz, -103/1kHz, -110/10kHz	+12V/170mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVI13	2425MHz	PLO	+17dBm	+/-0.9ppm	-80/1kHz, -93/10kHz, -113/100kHz	+12V/150mA	0 - +50 C	small size, low noise	57x57x15mm
BOVI12	2430MHz	PLO	+7dBm, dual outputs	+/-0.9ppm	-80/100Hz, -98/1kHz, -110/10kHz	+12V/65mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVI18	2430MHz	PLO	+15dBm	+/-0.9ppm	-110/1kHz, -115/10kHz, -122/100kHz	+12V/250mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVX16	2716,16MHz	PLO with Ext. Ref.	+10dBm	12.8MHz Ext. Ref.	-80/1kHz, -98/10kHz, -116/100kHz	+15V/150mA	-20 to +60C	small size, low noise	57x57x15mm
BOVX15	2810,88 MHz	PLO with Ext. Ref.	+10dBm	12.8MHz Ext. Ref.	-80/1kHz, -98/10kHz, -115/100kHz	+15V/150mA	-20 to +60C	small size, low noise	57x57x15mm
BOVX21	3000MHz	PLO with Ext. Ref.	+10dBm	120MHz Ext. Ref.	-95/1kHz, -100/10kHz, -102/100kHz	+12V/200MA	-20 to +60C	small size, low noise	57x57x15mm
BOVX22	3060MHz	PLO with Ext. Ref.	+10dBm	120MHz Ext. Ref.	-95/1kHz, -100/10kHz, -102/100kHz	+12V/200MA	-20 to +60C	small size, low noise	57x57x15mm
BOVI22	3450MHz	PLO	+17dBm	+/-0.3ppm	-90/100Hz, -113/1kHz, -114/10kHz	+15V/300mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVX29	3850MHz	PLO with Ext. Ref. 2 RF outputs	+6dBm / Output	100MHz Ext. Ref.	-90/100Hz, -100/1kHz, -107/10kHz	+12V/170mA	-20 to +60 C	small size, low noise, 2 RF Outputs	90x57x15mm
BOVI31	3963,9MHz	PLO	+17dBm	+/-0.3ppm	-104/1kHz, -110/10kHz, -115/100kHz	+12V/200mA	-20 to +60C	small size, low noise	57x57x15mm

# Signal Sources Catalogue

## 2015/1

Model	Frequency	Type	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Power supply	Temp. range	Features	Size
BOVI23	4050MHz	PLO	17dBm	+/-0.3ppm	-90/100Hz, -113/1kHz, -117/10kHz	+15V/300mA	-20 to +60 C	small size, low noise	57x57x15mm
BOVI32	4060,5MHz	PLO	+17dBm	+/-0.3ppm	-104/1kHz, -110/10kHz, -115/100kHz	+12V/200mA	-20 to +60C	small size, low noise	57x57x15mm
BOVI33	4157,2MHz	PLO	+17dBm	+/-0.3ppm	-104/1kHz, -110/10kHz, -115/100kHz	+12V/200mA	-20 to +60C	small size, low noise	57x57x15mm
BOVX30	4675MHz	PLO with Ext. Ref. 2 RF outputs	+6dBm / Output	100MHz Ext. Ref.	-88/100Hz, -98/1kHz, -105/10kHz	+12V/170mA	-20 to +60 C	small size, low noise, 2 RF Outputs	90x57x15mm
BOVX20	5520MHz	PLO with Ext. Ref.	+23dBm	120MHz Ext. Ref.	-95/1kHz, -100/10kHz, -102/100kHz	+12V/200MA	-40 to +70C	small size, low noise	57x57x15mm
BOVX11	6200MHz	PLO with Ext. Ref.	+13dBm	100MHz Ext. Ref.	-100/1kHz, -110/10kHz, -115/100kHz	+15V/150mA	-40 to +80C	small size, low noise	57x57x15mm
BOVI34	7927,8MHz	PLO	+17dBm	+/-0.3ppm	-98/1kHz, -103/10kHz, -110/100kHz	+12V/320mA	-20 to +60C	small size, low noise	57x57x15mm
BOVI27	8071,5MHz	PLO	+13dBm	+/-0.5ppm	-90/1kHz, -99/10kHz, -103/100kHz	+9V/560mA	-35 to +55C	low noise	75x75x26mm
BOVI35	8121,0MHz	PLO	+17dBm	+/-0.3ppm	-98/1kHz, -103/10kHz, -110/100kHz	+12V/320mA	-20 to +60C	small size, low noise	57x57x15mm
BOVI36	8314,4MHz	PLO	+17dBm	+/-0.3ppm	-98/1kHz, -103/10kHz, -110/100kHz	+12V/320mA	-20 to +60C	small size, low noise	57x57x15mm
BOVI24	9875MHz	PLO, Outdoor, Ext. Ref.	+21dBm	250MHz Ext. Ref.	110/10kHz, -115/100kHz, -145/1MHz	+12V/500mA	55 to +85C	small size, low noise, high RF power, outdoor	90x52x15.5mm
BOVI37	11891,7MHz	PLO	+17dBm	+/-0.3ppm	-93/1kHz, -98/10kHz, -105/100kHz	+12V/320mA	-20 to +60C	small size, low noise	57x57x15mm
BOVI38	12181,5MHz	PLO	+17dBm	+/-0.3ppm	-93/1kHz, -98/10kHz, -105/100kHz	+12V/320mA	-20 to +60C	small size, low noise	57x57x15mm
BOVI39	12471,6MHz	PLO	+17dBm	+/-0.3ppm	-93/1kHz, -98/10kHz, -105/100kHz	+12V/320mA	-20 to +60C	small size, low noise	57x57x15mm

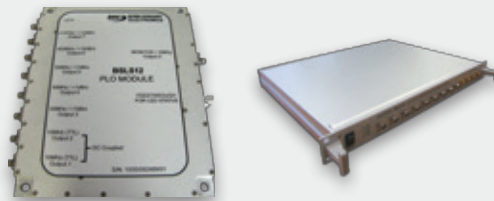


# Signal Sources Catalogue

## 2015/1

Model	Frequency	Type	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Power supply	Temp. range	Features	Size
BOVI40	15855,6MHz	PLO	+17dBm	+/-0.3ppm	-92/1kHz, -97/10kHz, -103/100kHz	+12V/320mA	-20 to +60C	small size, low noise	76x57x15mm
BOVI41	16242MHz	PLO	+17dBm	+/-0.3ppm	-92/1kHz, -97/10kHz, -103/100kHz	+12V/320mA	-20 to +60C	small size, low noise	76x57x15mm
BOVI42	16628,8MHz	PLO	+17dBm	+/-0.3ppm	-92/1kHz, -97/10kHz, -103/100kHz	+12V/320mA	-20 to +60C	small size, low noise	76x57x15mm
BOVI44	23783,4MHz	PLO	+17dBm	+/-0.3ppm	-89/1kHz, -94/10kHz, -100/100kHz	+12V/320mA	-20 to +60C	small size, low noise	76x57x15mm
BOVI45	24363MHz	PLO	+17dBm	+/-0.3ppm	-104/1kHz, -110/10kHz, -115/100kHz	+12V/320mA	-20 to +60C	small size, low noise	76x57x15mm
BOVI46	24943,2MHz	PLO	+17dBm	+/-0.3ppm	-104/1kHz, -110/10kHz, -115/100kHz	+12V/320mA	-20 to +60C	small size, low noise	76x57x15mm

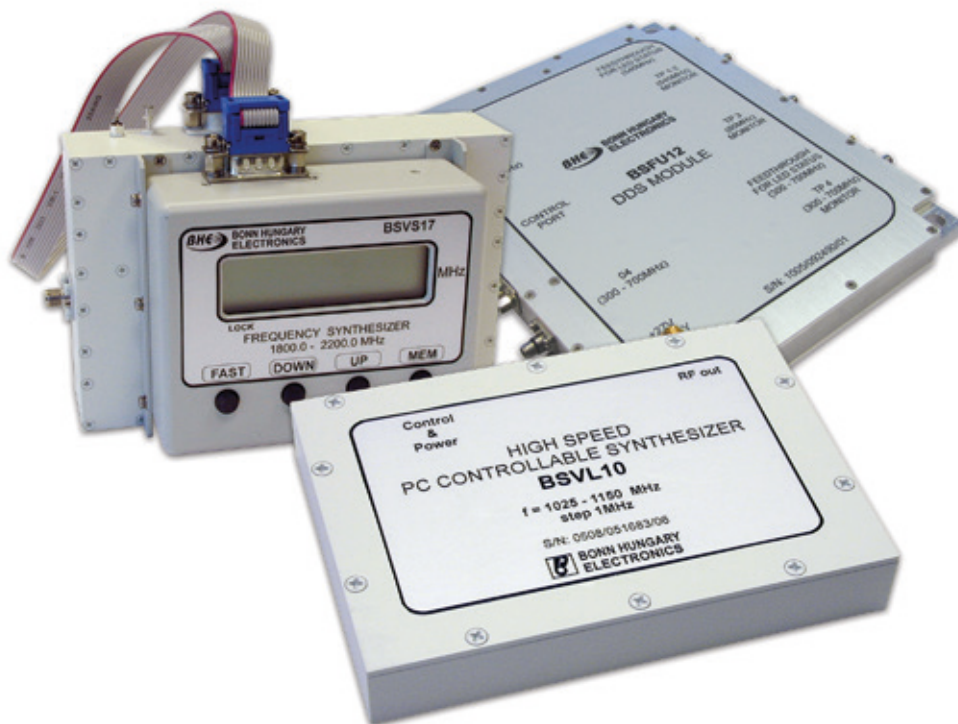
Multiple outputs fixed frequency synthesizer



Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Power supply	Temp. range	Features	Size
BSLS12	2200MHz, 400MHz, 50MHz, 10MHz fixed outputs	+12dBm	+/-0.025ppm or 10MHz ext. ref.	-103/100Hz at 2200MHz	+27V/680mA	-20 to +50C	Very low noise, multiple outputs	190x150x17mm
BSLS13	2492.028MHz, 1575.42MHz, 1176.45MHz and 10MHz sine wave and 25Hz, 50Hz, 100Hz, 1.023MHz, 2.046MHz, 5.115MHz, 10.23MHz, 20.46MHz, 81.8MHz square wave	+7dBm and TTL	+/-0.01ppm or 10MHz ext. Ref.	-94/1kHz, -100/10kHz, -117/100kHz at 2492.028MHz	230V AC	0 to +50C	Multiple different frequency outputs	19" rack, 1U high
BSLS14	SQRWave: 25Hz, 50Hz, 100Hz, 1.023MHz, 2.046MHz, 5.115MHz, 10.23MHz, 20.46MHz, 81.84MHz, 102.3MHz, SINWave: 10MHz, 102.3MHz, 1176.45MHz, 1575.42MHz, 2492.028MHz	+7dBm and TTL	+/- 1x10 EXP-10	-92/1kHz, -95/10kHz, -118/100kHz	230V AC	0 to +50C	Multiple different frequency outputs	19" rack, 1U high



# Frequency Synthesizers



# Signal Sources Catalogue

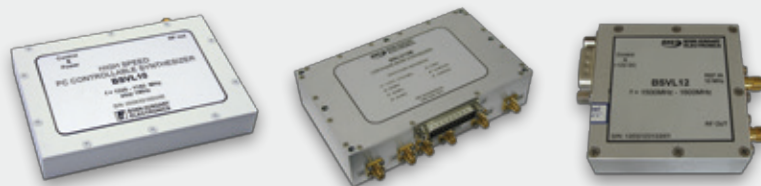
## 2015/1

### VHF-band



Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Temp. range	Control
BSFU10	175-250MHz and 290-480MHz, dual band	+10dBm	+/-0.3ppm or 20MHz Ext. Ref.	-128/1kHz, -132/10kHz, -138/100kHz	8.33kHz, 12.5kHz, 25kHz	+15V/500mA	-45 to +75C	Serial, 3wires
BSPB19	100-625MHz	+10dBm	10MHz Ext. Ref.	-95/10kHz, -110/100kHz, -140/1MHz at 625MHz	1MHz	+12V/280mA	-20 to +60C	RS-232
BSFU12	300-700MHz, very low noise, high speed, multiple outputs (fixed 540MHz, 60MHz)	+10dBm	+/- 0.025ppm or 10MHz Ext. Ref.	-116/100Hz at 700MHz	1MHz	+27V/680mA	-20 to +50C	Parallel or Serial, 3wires
BSVB24	500-700MHz	+10dBm	+/-2ppm	-88/1kHz, -92/10kHz, -114/100kHz	500kHz	+15V/150mA	-10 to +60C	Display with pushbuttons

### L-band



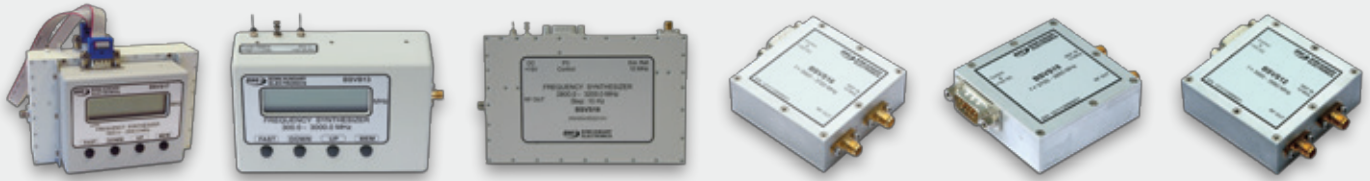
Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Temp. range	Control
BSVL10	1025-1150MHz	+14dBm	+/-50ppm	-80/100Hz, -100/1kHz	1MHz	+15V/160mA, -15V/10mA	-40 to +70C	Serial, 3wires

# Signal Sources Catalogue

## 2015/1

Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Temp. range	Control
BSLU13M	1116.5-1176.5MHz tunable and fixed 95MHz, 40MHz, 5MHz, 10MHz outputs	+21dBm	+/-1ppm	-106/100Hz, -126/1kHz, -136/10kHz at 1176.5MHz	5MHz	+15V/900mA	-32 to +75C	RS-422
BSVL12	1500-1600MHz	+10dBm	Ext ref. 10MHz	-90/100Hz, -99/1kHz, -100/10kHz	10MHz	+12V/100mA	-20 to +60C	parallel, 4bits
BSFL12	1520-1620MHz tuneable and fixed 400MHz, 240MHz, 40MHz, 30MHz	+12dBm	Ext ref. 10MHz	-95/100Hz, -120/1kHz, -135/10kHz at 1620MHz	1MHz	+15V/820mA	-40 to +72C	RS-232

### S-band



Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Temp. range	Control
BSPB16	5-2000MHz	+10dBm	+/-1ppm	-95/10kHz, -105/100kHz, -130/1MHz at 2000MHz	5MHz	+12V/270mA	-20 to +60C	RS-232
BSVS26	500-2000MHz	+10dBm min	+/-0.5ppm	-98/1kHz, -99/10kHz, -117/100kHz at 2000MHz	100kHz	+15V/450mA	-20 to +55C	SPI
BSVP11	700-2500MHz	+13dBm	+/-2ppm	-65/1kHz, -85/10kHz, -110/100kHz	100kHz	+12V/430mA (LCD)	0 to +40C	Display with pushbuttons / RS232
BSVB14	1000-2150MHz	+10dBm	+/-2ppm	-86/1kHz, -89/10kHz, -113/100kHz at 1575MHz	500kHz	+15V/230mA	-10 to +60C	Display with pushbuttons
BSVB22	1600-2200MHz	+10dBm	+/-2ppm	-83/1kHz, -86/10kHz, -112/100kHz at 2200MHz	500kHz	+15V/150mA	-10 to +60C	Display with pushbuttons

# Signal Sources Catalogue

## 2015/1

Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Temp. range	Control
BSVS17	1800-2200MHz	+10dBm	+/-0.2ppm	-95/10kHz, -100/100kHz	1kHz	+15V/330mA	0 to +50C	Display with pushbuttons
BSVB20	2100-2300MHz	+10dBm	+/-0.2ppm	<-110/100kHz	25kHz	+15V/200mA	0 to +50C	Display with pushbuttons
BSVB16	2230-2500MHz	+13dBm	+/-2ppm	-83/1kHz, -85/10kHz, -104/100kHz	500kHz	+15V/150mA	-10 to +60C	Display with pushbuttons
BSVB25	2400-3000MHz	+10dBm	+/-0.2ppm	-75/1kHz, -80/10kHz, -110/100kHz	500kHz	+15V/150mA	-10 to +60C	Display with pushbuttons
BSVB13	300-3000MHz	+12.5dBm	+/-0.5ppm	-75/1kHz, -79/10kHz, -115/100kHz at 1600MHz	100kHz	+15V/230mA	0 to +50C	Display with pushbuttons
BSVB23	800-3000MHz	+12dBm	+/-2ppm	-76/1kHz, -90/10kHz, -113/100kHz at 2200MHz	100kHz	+15V/230mA	0 to +50C	Display with pushbuttons
BSVS19	1000-3000MHz	+10dBm	+/-0.2ppm or 10MHz Ext. Ref.	-95/1kHz, -97/10kHz, -112/100kHz	1kHz	+15V/330mA	0 to +50C	Display with pushbuttons
BSVB19	2430-2700MHz	+13dBm	+/-2ppm	-82/1kHz, -85/10kHz, -105/100kHz	500kHz	+15V/200mA	-10 to +60C	Display with pushbuttons
BSVS18	2800-3200MHz	+10dBm	+/-0.2ppm or 10MHz Ext. Ref.	-93/10kHz, -110/100kHz	10Hz	+15V/330mA	0 to +50C	Serial, 3wires
BSVS23	3350-3450MHz	+10dBm	10MHz Ext. Ref.	-88/100Hz, -95/1kHz, -97/10kHz	10MHz	+12V/100mA	-20 to +60C	parallel, 4bits
BSVS20	3560-3660MHz	+10dBm	10MHz Ext. Ref.	-75/10Hz, -87/100Hz, -94/1kHz	10MHz	+12V/100mA	-30 to +70C	parallel, 4bits
BSVS16	3620-3720MHz	+10dBm	10MHz Ext. Ref.	-90/100Hz, -99/1kHz, -100/10kHz	10MHz	+12V/100mA	-20 to +60C	parallel, 4bits
BSVS13	3710-3810MHz	+10dBm	10MHz Ext. Ref.	-90/100Hz, -99/1kHz, -100/10kHz	10MHz	+12V/100mA	-20 to +60C	parallel, 4bits
BSVS15	3750-3850MHz	+10dBm	10MHz Ext. Ref.	-90/100Hz, -99/1kHz, -100/10kHz	10MHz	+12V/100mA	-20 to +60C	parallel, 4bits
BSVS14	3810-3910MHz	+10dBm	10MHz Ext. Ref.	-90/100Hz, -99/1kHz, -100/10kHz	10MHz	+12V/100mA	-20 to +60C	parallel, 4bits

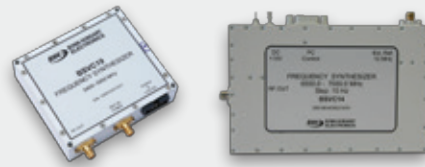


# Signal Sources Catalogue

## 2015/1

Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Temp. range	Control
BSVS12	3880-3980MHz	+10dBm	10MHz Ext. Ref.	-90/100Hz, -99/1kHz, -100/10kHz	10MHz	+12V/100mA	-20 to +60C	parallel, 4bits
BSVS21	3940-4040MHz	+10dBm	10MHz Ext. Ref.	-70/10Hz, -83/100Hz, -90/1kHz	10MHz	+12V/100mA	-20 to +60C	parallel, 4bits

### C-band

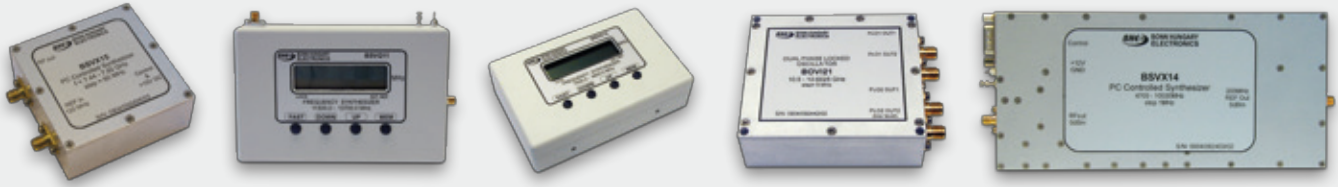


Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Temp. range	Control
BSVC16	4000-5000MHz	+10dBm	+/-0.2ppm or 10MHz Ext. Ref.	-89/1kHz, -91/10kHz, -100/100kHz at 4500MHz	1kHz	+15V/330mA	0 to +50C	Display with pushbuttons
BSVC17	4400-4520MHz	+10dBm	Ext ref. 10MHz	-89/100Hz, -91/1kHz, -100/10kHz	10MHz	+12V/80mA	-30 to +70C	parallel, 4bits
BSVC18	4880-5000MHz	+10dBm	Ext ref. 10MHz	-89/100Hz, -91/1kHz, -100/10kHz	10MHz	+12V/80mA	-30 to +70C	parallel, 4bits
BSVC19	5400-5900MHz	+13dBm	+/-1ppm or 10MHz Ext. ref.	78/1kHz, -83/10kHz, -107/100kHz	1kHz	+15V/170mA	0 to +50C	Serial, 3wires
BSVC21	5000-6000MHz	+10dBm	+/-0.2ppm	-96/1kHz, -105/10kHz, -105/100kHz	1kHz	+15V/450mA	0 to +50C	Display with pushbuttons and RS232
BSVC22	6000-7000MHz	+10dBm	+/-0.2ppm	-93/1kHz, -103/10kHz, -103/100kHz	1kHz	+15V/360mA	0 to +50C	Display with pushbuttons and RS232
BSVC20	6000-7500MHz	+10dBm	+/-0.2ppm or 10MHz Ext. Ref.	-90/10kHz, -107/100kHz	10Hz	+15V/330mA	0 to +50C	Display with pushbuttons
BSVC14	6500-7000MHz	+13dBm	+/-0.2ppm or 10MHz Ext. Ref.	-90/10kHz, -108/100kHz at 6750MHz	10Hz	+15V/330mA	0 to +50C	Serial,3wires
BSVC14D	6500-7000MHz	+10dBm	+/-0.2ppm or 10MHz Ext. Ref.	-90/10kHz, -108/100kHz at 6750MHz	10Hz	+15V/330mA	0 to +50C	Display with pushbuttons

# Signal Sources Catalogue

## 2015/1

### X-band



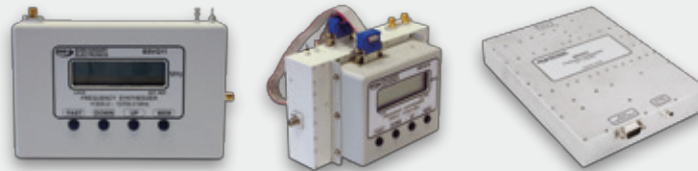
Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Temp. range	Control
BSVX16	6000-7000MHz	+13dBm	+/-0.2ppm or 10MHz Ext. Ref.	-85/1kHz, -89/10kHz, -108/100kHz	1kHz	+15V/330mA	0 to +50C	Display with pushbuttons and LAN & RS232 with outside control unit
BSVX15	7440-7920MHz	+13dBm	120MHz Ext. Ref.	-92/1kHz, -99/10kHz, -103/100kHz	60MHz	+15V/350mA	-20 to +70C	Serial, 3wires
BSVB21	2000-8000MHz	+13dBm	+/-0.2ppm	-68/1kHz, -69/10kHz, -102/100kHz at 4000MHz	100kHz	+15V/250mA	-10 to +60C	Display with pushbuttons
BSYQ11	2000-8000MHz	+10dBm min	+2ppm	-86/1kHz, -100/10kHz, -115/100kHz at 8000MHz	100Hz	+15V/1.3A max	0 to +50C	RS-232
BSVX12	7500-8600MHz	+10dBm	+/-0.2ppm or 10MHz Ext. Ref.	-80/10kHz, -90/100kHz	1kHz	+15V/330mA	0 to +50C	Display with pushbuttons
BSFX12	9210-9390MHz, 6 channels,	+13dBm	+/-5ppm	-80/100Hz, -100/1kHz, -115/10kHz	36MHz	+15V/1.2A	-40 to +70C	parallel 3 bits
BSFX13	9210-9400MHz, 20 channels,	+13dBm	+/-5ppm	-80/100Hz, -100/1kHz, -115/10kHz	10MHz	+15V/1.2A	-40 to +70C	parallel 5 bits
BSPB17	8400-9500MHz	+13dBm	+/-0.2ppm	-68/1kHz, -77/10kHz, 110/100kHz	1MHz	+15V/250mA	20 to +60C	Serial, 3wires
BSPB18	9300-9500MHz	-10dBm to +10dBm in 1dB step	+/-1ppm	-68/10kHz, -90/100kHz	1MHz	+15V/200mA	20 to +60C	Serial, 3wires
BSVX19	8500-9600MHz	+13dBm min.	+/-0.5ppm	-100/1kHz, -103/10kHz, -104/100kHz	5MHz	+15V/400mA	-40 to +85C	parallel, 10bit
BSVX22	8500-9600MHz	+19dBm	+/-0.5ppm	-97/1kHz, -100/10kHz, -112/100kHz	1MHz	+28V/220mA	-40 to +70C	Parallel 6 bits

# Signal Sources Catalogue

## 2015/1

Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Temp. range	Control
BSFX14	9440-9630MHz, 10 channels	+13dBm	+/-30ppm	-105/2kHz, -120/100kHz	20 or 30MHz, variable	+15V	-40 to +85C	via 10 wires
BSVX14	4700-10500MHz	0dBm	+/-0.3ppm	-105/1kHz, -105/10kHz, -110/100kHz	1MHz	+12V/1.2A	0 to +70C	Serial, 3wires
BSVX21	8500-10500MHz	+15dBm	+/-0.9ppm or 10MHz Ext. Ref.	-87/1kHz, -93/10kHz, -113/100kHz	10kHz	+15V/600mA	-40 to +70C	Serial, 3wires
BOVI21	10500-10600MHz and 10502.5-10602.5MHz dual synth.	+13dBm	+/-2ppm	-77/1kHz, -81/10kHz, -105/100kHz	5MHz	+12V/220mA	-20 to +60C	USB
BSVX20	9500-11500MHz	+15dBm	+/-0.9ppm or 10MHz Ext. Ref.	-87/1kHz, -93/10kHz, -113/100kHz	10kHz	+15V/600mA	-40 to +70C	Serial, 3wires

### Q-band



Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Temp. range	Control
BSVQ11	11500-13700MHz	+13dBm	+/-0.2ppm or 10MHz Ext. Ref.	-73/1kHz, -76/10kHz, -105/100kHz at 12600MHz	1kHz	+15V/330mA	0 to +50C	Display with pushbuttons
BSVQ10	11600-13700MHz	+13dBm	+/-0.2ppm or 10MHz Ext. Ref.	-81/1kHz, -83/10kHz, -95/100kHz at 12650MHz	1kHz	+15V/330mA	0 to +50C	Display with pushbuttons
BSVQ12	16000-18000MHz	+13dBm	+/-0.2ppm or 10MHz Ext. Ref.	-67/1kHz, -77/10kHz, -100/100kHz at 17000MHz	1kHz	+15V/390mA	0 to +50C	Display with pushbuttons
BSFQ10	10950-12750MHz	+13dBm	+/-0.2ppm	-100/1kHz, -110/10kHz, -113/100kHz	1MHz	+/-15V/800mA	-40 to +70C	Serial, 3wires
BSFQ11	10950-12750MHz	+23.5dBm	+/-0.2ppm	-100/1kHz, -110/10kHz, -113/100kHz	1MHz	+/-15V/1000mA	-40 to +70C	Serial, 3wires

# Signal Sources Catalogue

## 2015/1

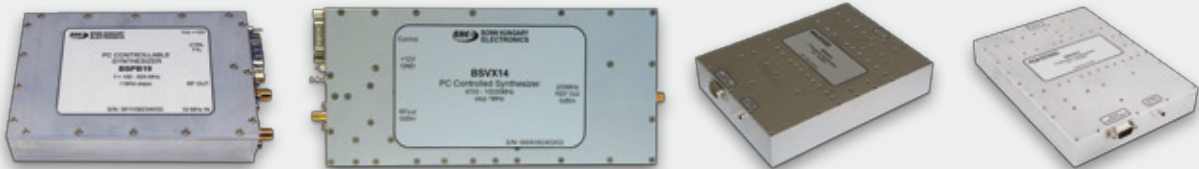
Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Temp. range	Control
BSVQ14	500-18000MHz	+10dBm min	+/-0.5ppm	-94/1kHz, -94/10kHz, -112/100kHz at 9600MHz	1MHz	+15V/550mA	-30 to +85C	RS-232
BSVQ15	500-18000MHz	+10dBm min	+/-0.5ppm	-94/1kHz, -95/10kHz, -106/100kHz at 9600MHz	10kHz	+15V/550mA	-30 to +85C	RS-232
BSVQ16	2000-18000MHz	+10dBm min	+/-0.5ppm	-76/1kHz, -78/10kHz, -92/100kHz at 18000MHz	1MHz	+15V/370mA	-20 to +55C	Serial, 3wires
BSVQ13	16000-18000MHz	+21dBm min.	+/-2ppm	-68/1kHz,- 78/10kHz,- 108/100kHz	1MHz	+15V/510mA	-20 to +50C	Serial, 3wires

### Ka-band



Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Temp. range	Control
BSVK11	34500-35155.35MHz	+15dBm	+/-0.5ppm	-93/100kHz, -122/1MHz	10kHz	+8V/1.3A	-30 to +75C	parallel, 16bits

### Wideband



Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Temp. range	Control
BSPB19	100-625MHz	+10dBm	10MHz Ext. Ref.	-95/10kHz, -110/100kHz, -140/1MHz at 625MHz	1MHz	+12V/280mA	-20 to +60C	RS-232

# Signal Sources Catalogue

## 2015/1

Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Temp. range	Control
BSPB16	5-2000MHz	+10dBm	+/-1ppm	-95/10kHz, -105/100kHz, -130/1MHz at 2000MHz	5MHz	+12V/270mA	-20 to +60C	RS-232
BSVS26	500-2000MHz	+10dBm min	+/-0.5ppm	-98/1kHz, -99/10kHz, -117/100kHz at 2000MHz	100kHz	+15V/450mA	-20 to +55C	SPI
BSVP11	700-2500MHz	+13dBm	+/-2ppm	-65/1kHz, -85/10kHz, -110/100kHz	100kHz	+12V/430mA (LCD)	0 to +40C	Display with pushbuttons / RS232
BSVB13	300 - 3000MHz	+12.5dBm	+/-0.5ppm	-75/1kHz, -79/10kHz, -115/100kHz at 1600MHz	100kHz	+15V/230mA	0 to +50C	Display with pushbuttons
BSVB23	800-3000MHz	+12dBm	+/-2ppm	-76/1kHz, -90/10kHz, -113/100kHz at 2200MHz	100kHz	+15V/230mA	0 to +50C	Display with pushbuttons
BSVS19	1000-3000MHz	+10dBm	+/-0.2ppm or 10MHz Ext. Ref.	-95/1kHz, -97/10kHz, -112/100kHz	1kHz	+15V/330mA	0 to +50C	Display with pushbuttons
BSVB21	2000-8000MHz	+13dBm	+/-0.2ppm	-68/1kHz, -69/10kHz, -102/100kHz at 4000MHz	100kHz	+15V/250mA	-10 to +60C	Display with pushbuttons
BSYQ11	2000-8000MHz	+10dBm min	+2ppm	-86/1kHz, -100/10kHz, -115/100kHz at 8000MHz	100Hz	+15V/1.3A max	0 to +50C	RS-232
BSVX14	4700-10500MHz	0dBm	+/-0.3ppm	-105/1kHz, -105/10kHz, 110/100kHz	1MHz	+12V/1.2A	0 to +70C	Serial, 3wires
BSVQ14	500-18000MHz	+10dBm min	+/-0.5ppm	-94/1kHz, -94/10kHz, -112/100kHz at 9600MHz	1MHz	+15V/550mA	-30 to +85C	RS-232
BSVQ15	500-18000MHz	+10dBm min	+/-0.5ppm	-94/1kHz, -95/10kHz, -106/100kHz at 9600MHz	10kHz	+15V/550mA	-30 to +85C	RS-232
BSVQ16	2000-18000MHz	+10dBm min	+/-0.5ppm	-76/1kHz, -78/10kHz, -92/100kHz at 18000MHz	1MHz	+15V/370mA	-20 to +55C	Serial, 3wires

# Signal Sources Catalogue

## 2015/1

### Fast Switching Synthesizers



Model	Frequency	Output power	Freq. stability	Phase noise (dBc/Hz) Typ. value	Frequency step	Power supply	Switching time	Control
BSFU10	175-250MHz and 290-480MHz, dual band	+10dBm	+/-0.3ppm or 20MHz Ext. Ref.	-128/1kHz, -132/10kHz, -138/100kHz	8.33kHz, 12.5kHz, 25kHz	+15V/500mA	<350usec	Serial, 3wires
BSFU12	300-700MHz, very low noise, high speed, multiple outputs (fixed 540MHz, 60MHz)	+10dBm	+/-0.025ppm or 10MHz Ext. Ref.	-116/100Hz at 700MHz	1MHz	+27V/680mA	<1usec	Parallel or Serial, 3wires
BSVL10	1025-1150MHz	+14dBm	+/-50ppm	-80/100Hz, -100/1kHz	1MHz	+15V/160mA, -15V/10mA	<250usec	Serial, 3wires
BSLU13M	1116.5-1176.5MHz tunable and fixed 95MHz, 40MHz, 5MHz, 10MHz outputs	+21dBm	+/-1ppm	-106/100Hz, -126/1kHz, -136/10kHz at 1176.5MHz	5MHz	+15V/900mA	<50usec	RS-422
BSFL12	1520-1620MHz tuneable and fixed 400MHz, 240MHz, 40MHz, 30MHz	+12dBm	Ext. ref. 10MHz	-95/100Hz, -120/1kHz, -135/10kHz at 1620MHz	1MHz	+15V/820mA	2.5usec	RS-232
BSFX12	9210-9390MHz, 6 channels	+13dBm	+/-5ppm	-80/100Hz, -100/1kHz, -115/10kHz	36MHz	+15V/1.2A	<5usec	Parallel 3 bits
BSFX13	9210-9400MHz, 20 channels	+13dBm	+/-5ppm	-80/100Hz, -100/1kHz, -115/10kHz	10MHz	+15V/1.2A	<5usec	Parallel 5 bits
BSVX19	8500-9600MHz	+13dBm min.	+/-0.5ppm	-100/1kHz, -103/10kHz, -104/100kHz	5MHz	+15V/400mA	<50usec	Parallel, 10bit
BSVX22	8500-9600MHz	+19dBm	+/-0.5ppm	-97/1kHz, -100/10kHz, -112/100kHz	1MHz	+28V/220mA	<600usec	Parallel 6 bits
BSVX14	4700-10500MHz	0dBm	+/-0.3ppm	-105/1kHz, -105/10kHz, -110/100kHz	1MHz	+12V/1.2A	<1msec	Serial, 3wires
BSVQ15	500-18000MHz	+10dBm min	+/-0.5ppm	-94/1kHz, -95/10kHz, -106/100kHz at 9600MHz	10kHz	+15V/550mA	<500usec	RS-232





## BHE Bonn Hungary Electronics Ltd.

**Address:** Ipari Park Str. 10. Budapest, H-1044 Hungary

**Mail:** P.O. Box 164. Budapest, H-1325 Hungary

**Phone:** +36 (1) 233-2138

**Fax:** +36 (1) 233-2506

**E-mail:** [info@bhe-mw.eu](mailto:info@bhe-mw.eu)

[www.bhe-mw.eu](http://www.bhe-mw.eu)