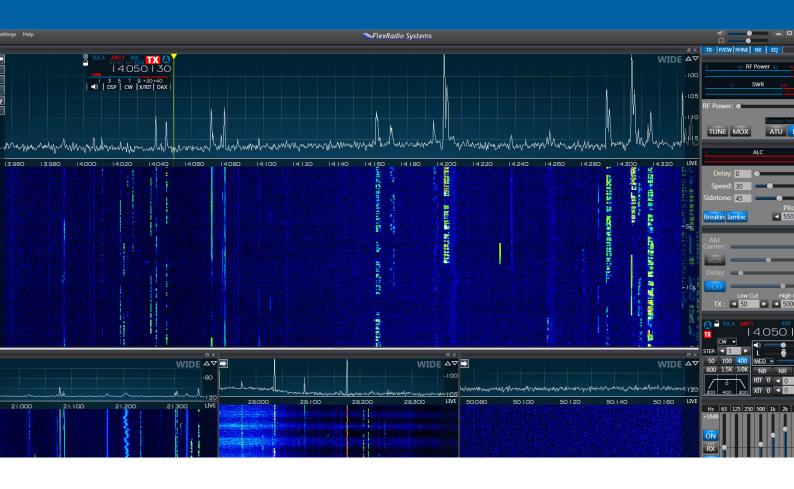
# FLEX-6000 Signature Series Direct Sampling Transceivers

with SmartSDR™











Each FLEX-6000 Signature Series radio is built on a digital direct sampling receiver foundation. By removing analog mixers and components, the FLEX-6000 family provides an ultra-quiet reception experience, ensuring you can see and hear the weak ones. The companion direct digital up-conversion transmitter creates the purest transmitted signal available, putting the "clear" in "loud and clear." All of this is built on a network-ready Ethernet platform ensuring high performance today and compatibility for the future.



**FLEX-6300** 

#### **High Performance SDR**

- Up to 2 full-performance receivers / panadapters
- Ability to view two different bands at once
- Transverter port for VHF and microwave operation
- 160m 6m coverage
- Seamless, cable free digital operation with DAX
- Fully network ready via Ethernet Port

The FLEX-6300 is the perfect entry into high performance software defined radio.

Features	
Maximum Slice Receivers / Panadapters	2
Maximum Panadapter Bandwidth	7 MHz
Antenna Connectors	SO-239x2; XVTR-BNCx1
Wideband Frequency Coverage	30 kHz - 54 MHz
Transverter IF Frequency Coverage	100 kHz - 54 MHz
Digital Audio Exchange Channels (DAX)	2
DAX IQ Channels/Bandwidth per Channel	2@24 kHz - 96 kHz
Microphone Connectors	Unbalanced 8-pin
Antenna Tuner Unit (ATU)	Optional

#### FLEX-6300 for the Serious Amateur

The FLEX-6300 is for the amateur operator who wants to experience the magic of software defined radio in the highest performance 100W transceiver family available today. The FLEX-6300 provides an entry point into multi-dimensional amateur radio operations from CW to the latest digital modes. Providing dual panadapters and waterfall displays, as well as two full-performance slice receivers, the FLEX-6300 opens up new operating capabilities at an affordable price.

\$249900

Introductory pricing. Includes transceiver, microphone, SmartSDR software license. PC and monitor not included.



**FLEX-6500** 

#### **Advanced Performance SDR**

- All the features of the FLEX-6300 plus...
- Up to 4 full-performance receivers/panadapters
- Full continuous coverage transmit performance for MARS or other out of band operation
- Ultimate frequency accuracy with optional GPS
- Hostile RF environment handling with integrated preselectors
- Integrated Antenna Tuner (ATU)

The FLEX-6500 allows you to "see before you hear" on multiple bands at once.

Features	
Maximum Slice Receivers / Panadapters	4
Maximum Panadapter Bandwidth	14 MHz
Antenna Connectors	SO-239x2; BNCx1; XVTR-BNCx1
Wideband Frequency Coverage	30 kHz - 72 MHz
Transverter IF Frequency Coverage	100 kHz - 72 MHz
Digital Audio Exchange Channels (DAX)	4
DAX IQ Channels/Bandwidth per Channel	4@24 kHz - 192 kHz
Preselectors	160 - 6m (except 60m)
Microphone Connectors	Unbalanced 8-pin, Balanced XLR/TRS
Antenna Tuner Unit (ATU)	Integrated

#### FLEX-6500 for the Advanced Amateur

The FLEX-6500 is for the advanced operator who desires extended performance across four slice receivers. Offering four panadapter and waterfall displays, the FLEX-6500 lets you see the action on up to four bands at once. Contest grade preselectors, integrated antenna tuner and optional GPSDO makes the FLEX-6500 the perfect radio for the serious DXer or contesting.

\$429900

 $Includes\ transceiver, microphone, SmartSDR\ software\ license.\ PC\ and\ monitor\ not\ included.\ Optional\ handles\ shown.$ 

## **FLEX-6700**

### Ultimate Performance SDR

- All the features of the FLEX-6500 plus...
- Up to 8 full-performance receivers / panadapters
- Multi-stage pre-amp
- Noise mitigation through future advanced multiantenna noise reduction techniques
- Two independent digitizers / Spectral Capture Units (SCUs)
- Two additional zoom levels for 6 dB increased spectral sensitivity

 $Includes\ transceiver, microphone, Smart SDR\ software\ license.\ PC\ and\ monitor\ not\ included.\ Optional\ handles\ shown.$ 

FLEX-6700

MIC PRIORES KEY

#### The FLEX-6700 packs more built-in DSP power than any amateur HF transceiver on the market.

Feature	
Maximum Slice Receivers	8
Maximum Panadapter Bandwidth	14 MHz
Antenna Connectors	SO-239x2; BNCx2; XVTR-BNCx1
Wideband Frequency Coverage	30 kHz - 72 MHz; 135 - 165MHz
Transverter IF Frequency Coverage*	100 kHz-72 MHz; 135-165MHz
Digital Audio Exchange Channels (DAX)	8
DAX IQ Channels/Bandwidth per Channel	4@24 kHz - 192 kHz
Preselectors	160 - 2m (except 60m)
Microphone Connectors	Unbalanced 8-pin, Balanced XLR/TRS
Antenna Tuner Unit (ATU)	Integrated

#### FLEX-6700 for the Most Demanding Amateur

The FLEX-6700 is for the most demanding amateur radio operator who desires the ultimate on-air experience. With dual spectral capture units (SCUs), the FLEX-6700 allows multiple active antennas providing reception and unprecedented spectrum visibility across up to eight panadapters and waterfalls. The FLEX-6700's dual-stage RF preamplifiers enhance weak signal reception up through six meter and two meter bands\*. Total flexibility and the highest performance sets the FLEX-6700 apart from other radios.

\*Two meter transmit power limited to -15 to +7dBm; external power amplifier not included.



	FLEX-6300	FLEX-6500	FLEX-6700
GENERAL			
USB 2.0 Ports (Peripheral Control)	2	2	2
Master Clock Frequency	122.88 MHz	983.04 MHz	983.04 MHz
Master Clock Phase Noise	-140 dBc@10kHz	-147 dBc@10kHz, -152 dBc@100kHz	-147 dBc@10kHz, -152 dBc@100kHz
10 MHz Reference Clock Stability (0° to +50° C; +32° to +122°F )	0.5ppm TCXO	0.5ppm TCXO	0.02ppm OCXO
GPSTCXO with Rear Panel 10 MHz Reference Output	NA	Optional	Optional
GPSTCXO Frequency Stability (GPS locked)	NA	5x10 <sup>-12</sup> over 24 hours	5x10 <sup>-12</sup> over 24 hours
Modes	USB, LSB, CW, RTTY, AM, Synchronous AM, FM*	USB, LSB, CW, RTTY, AM, Syncronous AM, FM*	USB, LSB, CW, RTTY, AM, Synchronous AM, FM*
Frequency Resolution	1 Hz min.	1 Hz min.	1 Hz min.
Antenna Connectors	SO-239x2; XVTR-BNCx1	SO-239x2; BNCx1; XVTR-BNCx1	SO-239x2; BNCx2; XVTR-BNCx1
Antenna Impedance (without tuner)	50 Ohm Unbalanced	50 Ohm Unbalanced	50 Ohm Unbalanced
Power Supply Requirements	+13.8Vdc nominal +/- 15%	+13.8Vdc nominal +/- 15%	+13.8Vdc nominal +/- 15%
Current Drain (Receive/Max Power)	1.7A / 23A @ 13.8V	1.7A / 23A @ 13.8V	3A / 23A @ 13.8V
Dimensions (with/without feet)	13"W x 11.75"D x 2 <sup>7/8</sup> "H (with feet) 33cm x 29.84cm x 7.06cm	13"W x 12"D x 4" H (3.5"H w/o feet) 33cm x 30.5cm x 10.2cm (8.9cm w/o feet)	13"w x 12"D x 4"H (3.5" H w/o feet) 33cm x 30.5cm x 10.2cm (8.9cm w/o feet)
19in. (48.26cm) Rack Mounting Kit	NA	Optional	Optional
Front Handle Kit (adds 1in. / 2.54cm to total depth)	Optional	Optional	Optional
Weight (approximate)	10 lbs. / 4.5 kgs	13 lbs. / 5.9 kgs	13 lbs. / 5.9 kgs
Operation Temperature Range	0° to +50°C / +32° to +122°F	0° to +50° C / +32° to +122° F	0° to +50° C / +32° to +122° F
RECEIVER			
Spectral Capture Units (SCUs) / Maximum Slice Receivers	1 SCU / 2 Slice Receivers	1 SCU / 4 Slice Receivers	2 SCUs / 8 Slice Receivers
Maximum Panadapter Width	7 MHz	14 MHz	14 MHz
ADC Resolution / ADC Sampling Rate	16-bits / 122.88 Msps	16-bits / 245.76 Msps	16-bits / 245.76 Msps
Wideband Frequency Coverage	30 kHz - 54 MHz	30 kHz - 72 MHz	30 kHz - 72 MHz; 135 - 165 MHz
DAX IQ Channels / Bandwidth Per Channel	2 @ 24kHz - 96 kHz	4 @ 24 kHz - 192 kHz	4 @ 24 kHz - 192 kHz
DAX Audio Channels	2	4	8
Amateur Band Preselector Coverage	NA	160m - 6m (except 60m)	160m - 2m (except 60m)
Attenuators / Preamplifiers	0 to +20 dB	-10 to +20 dB	-10 to +30 dB
Spurious and Image Rejection Ratio	>80 dB	>100 dB	>100 dB
External Powered Speaker Output Impedance Level	600 Ohm stereo unbalanced	600 Ohm stereo unbalanced	600 Ohm stereo unbalanced
TRANSMITTER			
TX DAC Resolution / Sampling Rate	16 bits / 122.88 Msps	16 bits / 491.52 Msps	16 bits / 491.52 Msps
RF Output Power (nominal)	1-100W SSB, CW, FM*, RTTY, DIGITAL; 1-25 W nominal AM (carrier)	1-100W SSB, CW, FM*, RTTY, DIGITAL; 1-25 W nominal AM (carrier)	1-100W SSB, CW, FM*, RTTY, DIGITAL; 1-25 W nominal AM (carrier)
Amateur Band Coverage at Rated Power Output	160m - 6m	160m - 6m	160m - 6m
Low Pass PA Filter Bands	160m - 6m ham band only	1.8 MHz - 30 MHz continuous, 50 MHz - 54 MHz	1.8 MHz - 30 MHz continuous, 50 MHz - 54 MHz
Transverter IF Output Power	+0dBm Typical; +10dBm max	+0dBm typical; +10dBm max	+0dBm Typical; +10dBm max (+7dBm, 2m)
Transverter IF Frequency Coverage	100kHz - 54 MHz	100kHz - 72 MHz	100 kHz - 72 MHz, 135 MHz -165 MHz
Modulation System	Digital Low Power at Carrier Frequency	Digital Low Power at Carrier Frequency	Digital Low Power at Carrier Frequency
Maximum FM Deviation*	5 kHz	5 kHz	5 kHz
DAX Transmit Channel	Yes	Yes	Yes
Carrier Suppresion / Unwanted Sideband Suppresion	<80 dBc typ / <80 dBc typ	<80 dBc typ / <80 dBc typ	<80 dBc typ / <80 dBc typ
Harmonic Radiation 1.8 - 50 MHz Amateur Bands	<50 dBc; -70 dBc 6m	<60 dBc; -70 dBc 6m	<60 dBc; -70 dBc 6m
Transmit Bandwidth	Default 300 - 2700 Hz (Variable 50 - 10000 Hz)	Default 300 - 2700 Hz (Variable 50 - 10000 Hz)	Default 300 - 2700 Hz (Variable 50 - 10000 Hz)
Microphone Connectors	Unbalanced 8-pin	Unbalanced 8-pin; Balanced XLR/TRS	Unbalanced 8-pin; Balanced XLR/TRS
Microphone Impedence	600 Ohms Nominal (200 - 10kOhm)	600 Ohms Nominal (200 - 10kOhm)	600 Ohms Nominal (200 - 10kOhm)
ANTENNA TUNER			
Matching Range 80m, 10m	Optional (8.3 Ohms - 300 Ohms)	8.3 Ohms - 300 Ohms	8.3 Ohms - 300 Ohms
Matching Range 160m, 6m	Optional (16.7 Ohms - 150 Ohms)	16.7 Ohms - 150 Ohms	16.7 Ohms - 150 Ohms