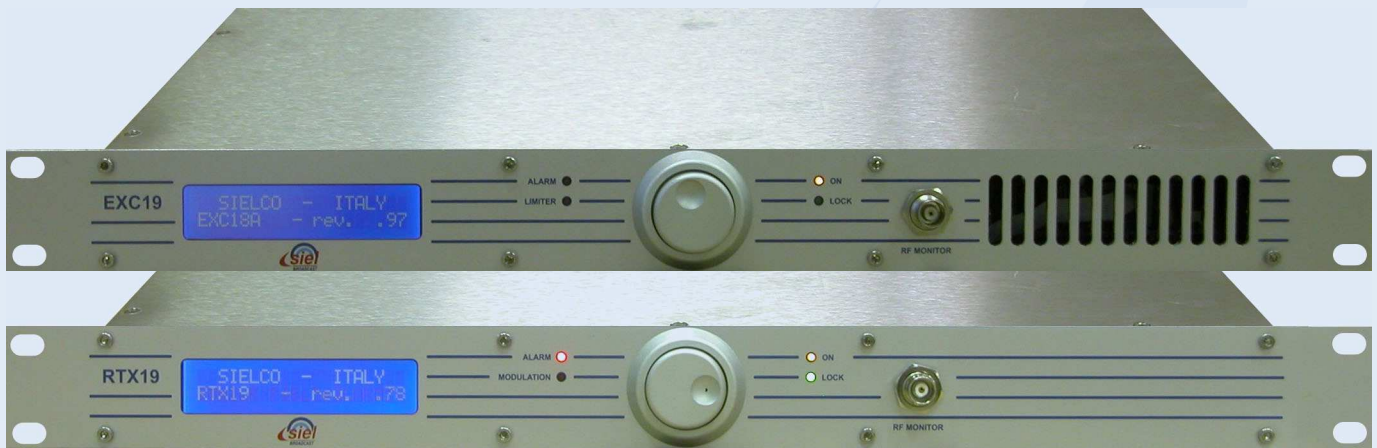


EXC-RTX19/13-25

SHF BROADCAST RADIO LINK FAMILY 1300-2500MHz



The **EXC/RTX19** is a modern direct-synthesis, frequency-agile broadcast quality STL (Studio to Transmitter Link), which may be factory preset on a very wide frequency range from VHF to SHF. The design of this equipment derives from a refinement of the time and field proven EXC/RTX18 series, coupled with the extended digital control features introduced on EXC25 and EXC30GT FM transmitter. Both transmitter and receiver offer full digital readout and complete and intuitive front panel control through a simple single jog coupled with extensive remote programmability and monitoring. They are accommodated in an elegant, modern looking and space efficient single unit 19" cabinet which requires exactly half the room of the previous series.

The excellent and even better modulation characteristics, i.e. low noise, distortion and broad pass-band, the performance of the optional internal stereo-encoder and decoder, the on field programmability, makes the **EXC/RTX19** a superior choice for a broadcast-grade STL, with reliable and maintenance-free operation. They also perfectly mate with external digital companding encoders/decoders.

TECHNICAL DESCRIPTION

- Compact, direct modulated low-noise synthesized, oscillator, with 25 kHz programming step.
- External on-field programmability of frequency and power, without any special instrument over a broad range
- Simple and modular internal construction facilitates stage testing and servicing.
- Stable, high precision and temperature compensated crystal time-base.
- Balanced/unbalanced audio, MPX and separate auxiliary SCA / RDS channel input., wide range level adjustable in small steps.
- Up to 6 separate LF input and output connectors plus RF/IF monitor for extended flexibility of use.
- Optional high performance digital stepwise stereo-encoder and decoder. This option may also be installed as an upgrade on the field.
- Narrow low-loss microwave input filter for high sensitivity and excellent performance in highly noisy RF environment
- High efficiency, low-noise switch-mode power supply, with extended 90 ÷ 260 Vac input range and battery backup input with recharging option
- Complete digital control of all internal circuitry and extremely wide monitoring facilities. RS232 port for complete remote control
- Password protection of critical data and presets

TECHNICAL SPECIFICATIONS

Factory preset frequency ranges

| | |
|---------------|------------------|
| 1350÷1375 MHz | 1370÷1390 MHz |
| 1429÷1433MHz | 1510÷1530MHz |
| 1660÷1670MHz | 1700÷1725MHz |
| 1725÷1750MHz | 2367.5÷2372.5MHz |
| 2440÷2.450MHz | 2468.1÷2483.3MHz |

Other sub-ranges on request

- Modulation: FM, 75 kHz peak dev.
180kF3E in mono
256kF3E in stereo
- Synthesis step: 25kHz
- Frequency error: <2.5 ppm 3' after power-on
- RF output power 2W / 5W (1.3÷2.5 GHz)
- RF harmonic products: <-60 dBc, -70 dBc typ.
- RF spurious products: <-70 dBc, -80 dBc typ.
- Audio/mpx input level: -3.5 ÷ +12.5 dBm @ ±75 kHz deviation on female XLR conn.
- Aux channel input level (on 10 k ohm):
-12.5 ÷ +3.5 dBm @ ±7.5 kHz dev.
-24 ÷ -8 dBm @ ±2 kHz dev.
- Transmitter LF monitor output level:
0 ÷ +10 dBm @ ±75 kHz dev.
- Deviation limiter: adjust. between 0 and > +7 dB
- Preemphasis time constant: 0 / 50 / 75 µs ±2%
- Mpx/mono output level: -1.5 ÷ +12 dBm, 0.5dB/step on male XLR
- S/N ratio (30÷20000 Hz. rms):
≥75 dB >80 typ. mono
≥72 dB >76 typ. stereo
- Modulation distortion @ 1kHz / 100% dev.:
mono ≤0.1% 0.03% typ.
stereo, 1ch ≤0.30% 0.20% typ.
- Stereo crosstalk (typ): <-50 dB (100 ÷ 5000 Hz)
<-45 dB (30 ÷ 15000 Hz)
- Audio channel freq. response:
30 Hz ÷ 15 kHz ±0.1dB
- Wide-band demodulated LF output:
15 Hz ÷ 120 kHz +0.1/-3dB
- Usable input level: -90 ÷ -10dBm (7µV÷70mV)
- Sensitivity (typ): Sin= -90dBm (7µV) mono (S/N=60dB)
Sin= -70dBm (70µV) stereo
- Dynamic selectivity:>+10dB typ @ δF=300 kHz
>+35dB typ @ δF=500 kHz
>+45dB typ @ δF=1.0 MHz
- I/O lines: RF/LF disable, Direct pw, On the air, Low field, Alarm
RS232 for monitoring and control
- Mains supply: 90 ÷ 260 Vac 50/60 Hz
45 W (<15W Rx)
- Battery backup/supply: 22.0 ÷ 28.0 V
≤1.8A @ 24V (0.4A Rx)
- Operating temperature range: 0 ÷ 35 °C recomb.
-10 ÷ 45 °C max
- Dimensions without handles: 19" 1 un. std. rack
(each equipment) 483 x 43.5 x 320 mm
- Weight: 4,0kg (Tx), 3,5kg (Rx)

INFORMATION HEREBY SUPPLIED ARE AS ACCURATE AS POSSIBLE. HOWEVER ALL SPECIFICATIONS ARE PURELY INDICATIVE: SIELCO RESERVES THE RIGHT TO CHANGE THEM OR THE CIRCUITRY, WITHOUT ANY PREVIOUS ADVICE, IN ORDER TO IMPROVE THE PRODUCT.

