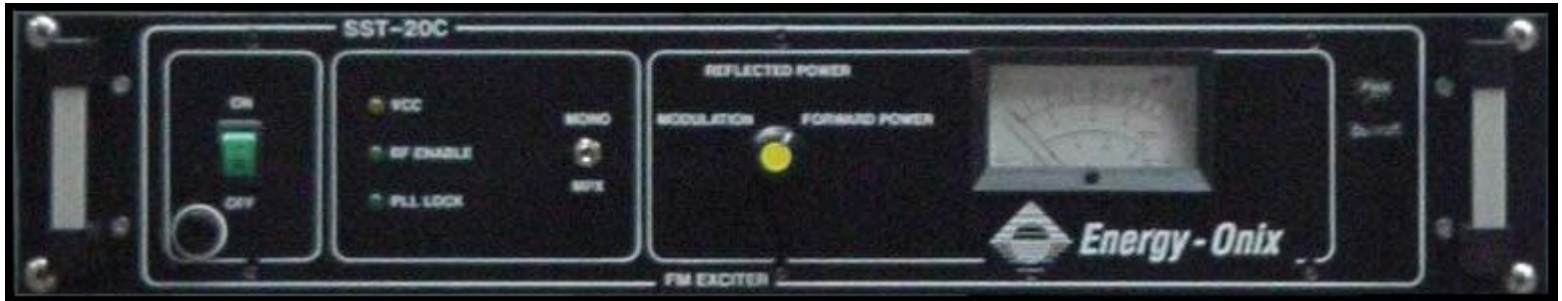


SST-20C/30C/50C

20/30/50 Watt FM Broadcast Exciter/Transmitter



Features:

- ◆ Frequency Agile
- ◆ Mono or MPX and Simultaneous SCA Inputs
- ◆ Optional FSK
- ◆ External Mute
- ◆ Minimum Weight —11 pounds
- ◆ Rated For Continuous Duty
- ◆ Attractively Priced
- ◆ Front Panel Metering of Forward, Ref Power & Deviation
- ◆ Built in Harmonic Filter
- ◆ Built in VSWR Foldback
- ◆ Occupies (2) 19" Rack Units (3-1/2")

The SST-20C/30C/50C family of FM exciters is a budget priced exciter which can be used as a stand alone low power transmitter or as a driver for the Energy-Onix solid state 100 watt, 300 watt, 500 watt and 1 Kw solid state amplifiers.

The only differences between the 20, 30, and 50 watt version are the power supply and Internal RF drive.

The rear panel contains BNC connectors for the MPX/Mono input, the external mute, the SCA input and type "N" receptacle for the power outputs.

Frequency change is accomplished by operating (4) switches which can be accessed from the top of the chassis. Thus they are not readily available to the public. The front panel contains a power output level control, while the rear panel contains a modulation level control.



ENERGY-ONIX

The Transmitter People

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TECHNICAL SPECIFICATIONS

| | |
|------------------------------------|---|
| Rated Output Power: SST20C/30C/50C | 2-20/2-30 and 2-50 watts continuously variable (ALC) |
| RF Output Connector: | “N” type female |
| RF Output Impedance: | 50 Ohm |
| Frequency Range: | 87.5 Mhz to 108 Mhz |
| Frequency Programmability: | Direct Rotary switch in 10 KHz increments |
| Frequency Stability: | Better than 5 ppm (+/- 500 Hz) |
| Modulation Type: | Direct carrier frequency modulation |
| Emission Class: | F3E |
| Spurious & Harmonic Suppression: | <-80 dB or better |
| Stereo Separation: | 50 dB @ 1 KHz |
| Distortion: | <0.1 % (typ. 0.08%) |
| Asynchronous AM S/N Ratio: | 60 dB below reference carrier with 100% amplitude modulation at 400 Hz without de-emphasis, no FM modulation present |
| Synchronous AM S/N Ratio: | 55 dB or better below reference carrier with 100% amplitude modulation at 400 Hz, without de-emphasis, FM modulation = +/- 75 KHz at 400 Hz |
| AC Power Requirement: | 117 or 230V, +/-10%, 50-60 Hz, single phase internally switchable |
| Power Consumption: | 60w @ 20, 75w@ 30, 105w @ 50 watts output |
| Panel Size: | 483mm (19”) w x 88mm (3.5”) h (2 standard rack spaces high) |
| Overall depth: | 327 mm (13”) |
| Weight: | 5Kg (11 Lbs) |
| Ambient Temperature Range: | 0° to 50° c (32° to 122° F) |
| Pre-emphasis: | for FCC 75 usec; for CCIR 50 usec internally selectable |

Composite Operation

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| MPX Inputs | 1 unbalanced BNC connector |
| MPX Input Impedance: | 2k Ohm |
| MPX Input Level: | 0 dBm (775 mVrms/2.2 Vp-p) for +/- 75 KHz, adjustable |
| Composite FM unweighed S/N ratio: | >70dB below +/- 75 KHz, deviation at 400 Hz measured in a 30 Hz to 100 KHz bandwidth with 75 usec de-emphasis (RMS) |
| Composite Total Harmonic Distortion: | 0.08% typical |
| Composite Intermodulation Distortion: | 0.05%, measured with a 1 KHz and a 1.3 KHz tone, 1:1 ratio, at 100% modulation |
| Baseband: | 30 Hz-60KHz within 0.15 db |
| Crosstalk: | Main to stereo subchannel and stereo subchannel to main >50 dB (55dB typical) |

Monaural Operation

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| Audio Input Impedance: | 2k ohm |
| Audio Input Level FM S/N Ratio: | 0 dB below +/- 75 KHz, deviation at 400 Hz measured in a Hz to 20 KHz bandwidth with 75 usec de-emphasis (RMS) |
| Audio Frequency Response: | +/- 0.8 dB, 30 Hz to 15 KHz |
| Intermodulation Distortion: | 0.08% or less, measured with a 1kHz and a 1.3 KHz tone, 1:1 ratio at 100% modulation |

FSK Operation

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| Input Control Signal: | connection to ground on 9 pin “D” sub receptacle causes carrier to shift 10 KHz. Duration of ground determines Morse key “dot” or “dash” |
|-----------------------|--|

SCA Operation

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| Input Level: | 1 Volt RMS at SCA frequency of 67 KHz to 90 KHz causes 10% modulation of carrier. |
| Input Connector: | BNC with 2K input impedance unbalanced. |