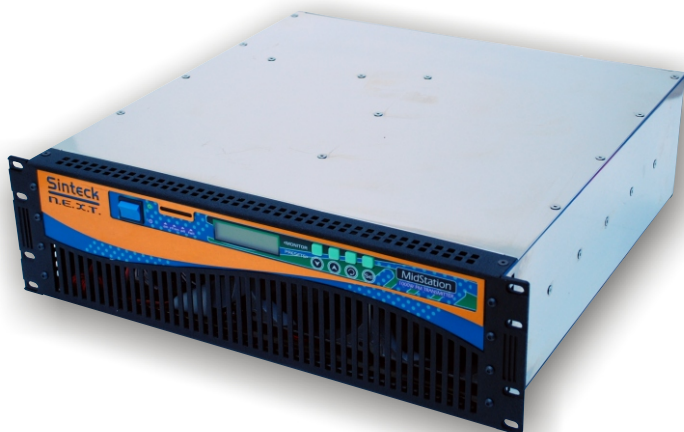


MidStation Series - FM Broadband 600W/1kW

EX1000 MidStation - 1100W Broadband FM Stereo Exciter/Transmitter

Sintek
N.E.X.T.



- ▶ * 1100W FM Exciter/ Transmitter
- ▶ * Broadband 87,5-108,1MHz
- ▶ * Stereo generator, Digital Filter, Audio Processor CARDS available
- ▶ * More punch, Hi-Fi VCO
- ▶ * Switched Mode Power Supply From 170 to 265V AC in
- ▶ * RS232 Interface
- ▶ * Remote/Interlock interface
- ▶ * SCA and RDS inputs
- ▶ * MOSFET DESIGN

MidStation Series: Powerful FM Exciters/Transmitters, Reliable, Excellent Audio Quality CD, Add-on CARDS Available - Stereo Generator, Digital 15kHz Low Pass Filter and Audio Processor Dual-Band

The EX1000 MidStation is a complete FM Exciter/Transmitter. You can choose the frequency through the buttons located on the equipment front panel. Frequencies between 87,5 to 108,1MHz might be set by the user in 10kHz steps, dual speed PLL system. The equipment is totally BROADBAND, this means, the RF power level stays the same independently of operation frequency.

The excellent audio quality is due to its hi-quality FM VCO, modulating through eight varicap diodes.

The EX1000 has variable power output from 55W to 1100 (digital adjust, via front panel) this is important if you drive an external power amplifier (like High-power PowerCell combined series), this way, if your amplifier needs about 250W to input this FM exciter is the most indicated.

Suitable for applications like FM exciter, the EX1000 can also be used as stand alone transmitter.

The EX1000 MidStation has the CARDS option, connecting all CARDS your FM Station will be complete, just connecting the audio cable from the mixer the FM Station is on the air. Also, you can configure if your transmission is in MONO or STEREO mode - externally - just pressing the buttons on the front panel, and it's done.

You can choose what CARD you need, as the Strider Link, the MidStation series have the internal connection of AddOn Cards, that implements the equipment version: stereo generator Card, digital low pass filter Card and audio processor dual-band Card, turn your EX1000 still more powerful with these CARDS!

Also, if you have an external audio processor, the EX1000 MidStation has an option in its panel: you can configure the main audio input, if it is stereo generated internally to EX1000 or externally, from the processor. To do this, you just need to press the buttons UP/DOWN and SELECT.

RDS encoders may be connected in the EX1000 MidStation, there are 2 inputs for these encoders: SCA input and 19KHz tone sync output.

The EX1000 is available in American, European and also Japanese bands only pressing the overset of the equipment.

On the LCD display, parameters like operation frequency, FWD and Reverse power, Composite audio level, Left and Right audio level, selection of internal or external MPX, Stereo or Mono operating and others are shown. Sintek implemented the HARD-CLIPPER circuitry, avoiding any audio overmodulation. We present an easy to use interface in this exciter, easy to configure and operate.

The AC input is 220V (110V also available) "Switched Mode Power Supply" ZVS system, that allows the maximum efficiency (about 93%) assuring high power economy. Sintek introduce them system of "Inserting Power Supply", where the Power Supply System is inserted and may be changed easily.

The EX1000 is a complete solution, offering superior audio performance and quality.

Get more information about EX1000 in the following pages!

Sintek Next RF Systems

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Europe:

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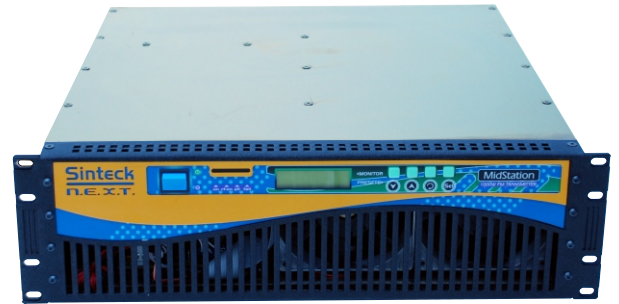
MidStation Series - FM Broadband 600W/1kW

EX1000 MidStation - 1100W Broadband FM Stereo Exciter/Transmitter

EX1000 LCD Panel, some configurations...

| | |
|--|---|
| | Channel change directly on the front panel. You can choose the frequency from 87,5 to 108,1MHz. |
| | Forward and Reverse power are shown in real-time in percents. Automatic reducing power level when exceeded the SWR limit. |
| | Voltage in the power amplifier stage, including total current and what is the temperature in the heatsink can be monitored in this view. |
| | The audio level that modulates the VCO is shown in this LCD menu, very important to know if the modulation is distorting your FM transmitter. |
| | Left and Right audio levels are monitored in this view. You can know if both channels are ok. |
| | You can set the maximum Reverse power admitted, if the limit is more than the set, the RF power output is turned off, protecting the equipment. |
| | External audio processor or STL links might be connected, only setting to External MPX. |
| | You can select if the audio transmission is in Stereo or Mono only pressing the button UP/DOWN. |
| | Once installed the audio processor card, this view will appear, you can set if this card will be operating or not. |
| | After configured the parameters you want, you can choose this option to ENABLE, this way nobody may modify your personal configurations. |

EX1000 Front panel overview:



EX1000 Visual-cabinet overview:



EX1000 Rear panel overview:

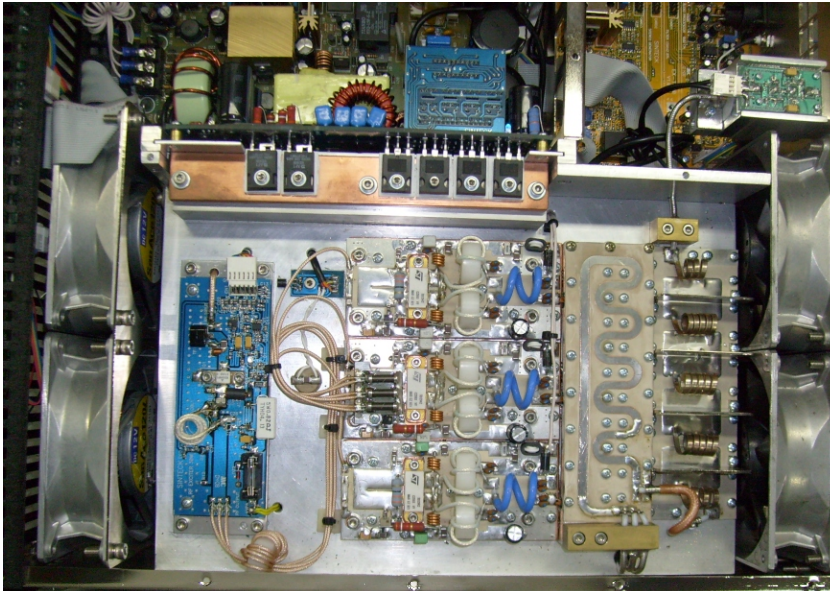


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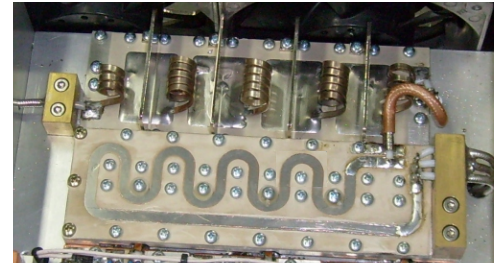
MidStation Series - FM Broadband 600W/1kW

EX1000 MidStation - 1100W Broadband FM Stereo Exciter/Transmitter

EX1000 Internal Overview



RF Driver, 3 x Pallet SD2942 375W each, Z Transformer, Harmonic Filter

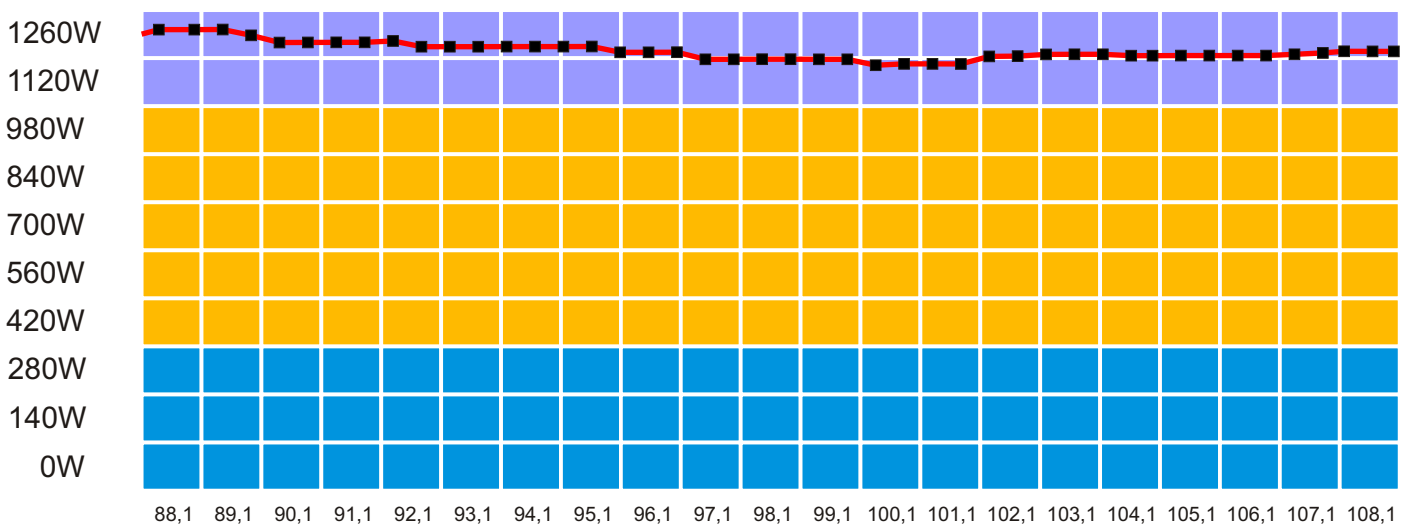


Z Transformer and Low Pass Filter Detail



375W Pallets Detail

RF Power Output (Set to the Max.Power):



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MidStation Series - FM Broadband 600W/1kW

EX1000 MidStation - 1100W Broadband FM Stereo Exciter/Transmitter

Technical Features:

RF Features:

| | |
|------------------------------------|--|
| Output Power: | 1120W +/- 5% variation across the band |
| RF Output Impedance: | 50 Ohms |
| RF Output Connector: | DIN 7/16 Female |
| Frequency Range: | 76,0 to 98MHz and 87,5 to 108,1MHz |
| Frequency Step: | Default 10KHz, DUAL SPEED PLL |
| Frequency Programmability: | UP/DOWN Keys, safety hold programmable on the front panel |
| Frequency Stability: | 5 ppm, 2 or 1 ppm under request |
| Type of Modulation: | F3, FM direct modulation (RF oscillator directly on the frequency) |
| Harmonic and Spurious Attenuation: | >75dBc |
| Residual AM modulation (Assyncr.) | Approximately 0,05% (55dB) |
| Residual AM modulation (Syncr.) | Approximately 0,1% (65dB) |
| Intermodulation Distortion: | <0,05% @ 1kHz |
| Frequency Response Capability: | 20Hz to 200kHz |

Power Supply:

| | |
|--------------------------|--|
| AC Input: | 170V to 265V 47-63Hz |
| DC Input: | Not available in this version |
| AC Surge Protection: | 3 Varistor 285V, gas discharger and fuse |
| Power Supply Efficiency: | 93% or better in 220V AC |
| Switching Frequency: | 100kHz |
| Power Consumption: | Approximately 1500W from AC |
| AC Input Connector: | Terminals Bridge |

General Features:

| | |
|----------------------------|---|
| Weight: | 25,5kgs net weight |
| Dimensions: | 483mm (6") wide, 133,35mm (3 RU) high, 455mm (18") deep |
| Ambient Temperature Range: | 0 to +45 Degrees Celsius |
| Maximum Humidity: | 95% at +45C without condensation |

CPU and Display Features:

| | |
|------------------------------------|--|
| CPU: | PIC Processor, microcontrolled with Sintek EX1000 Software V.1.0 |
| Memory: | Non-volatile, retention >40 years |
| Full Micro-controlled protections: | PLL out of lock, VSWR exceeded, Voltage, Current, Temperature and others |
| Panel Keys Control: | UP/DOWN freq. St or Mono, Int or Ext MPX, Config Hold and others |
| LCD Display: | 16 columns, 2 lines, green back light |

Audio Inputs Left&Right:

| | |
|------------------------------------|---------------------------------|
| Input Connectors: | XLR Female |
| Internal Jumper selection for: | 50 or 75us stereo pre-emphasis |
| Input Impedance: | 600 Ohms unbalanced |
| Frequency Response: | 20Hz to 15kHz (THD+N < 0,1%) |
| Input Level: | 0dB for 75kHz carrier deviation |
| Stereo Sep. (see SG Strider Card): | Better than 55dB @ 1kHz |
| Pilot Tone Frequency/Stability: | 19kHz +/- 1Hz |

MPX Input:

| | |
|---------------------|--|
| Input Impedance: | 10k Ohms Unbalanced BNC Connector |
| Frequency Response: | 20Hz to 200kHz +/- 1dB for 75kHz deviation |

SCA Input:

| | |
|---------------------|---|
| Input Impedance: | 10k Ohms Unbalanced BNC Connector |
| Frequency Response: | 15kHz to 200kHz +/- 1dB for 75kHz deviation |

RDS Tone Sync Output:

| | |
|-----------------------------|-----------------------------------|
| Output Impedance: | 10k Ohms Unbalanced BNC Connector |
| 19kHz sync frequency level: | Fixed 1Vpp |

* Specification subject to change without notice

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MidStation
FM Exciters - Transmitters