

## MiniStation Series - FM Broadband Exciters

### EX01 MiniStation - 1W Broadband FM Stereo Micro Transmitter



- ▶ \* 1W FM Exciter/ Mini-transmitter
- ▶ \* Broadband 87,5-108,1MHz
- ▶ \* More punch, hi-fi VCO
- ▶ \* Stereo generator included

EX01 MiniStation: The smallest FM Exciter/Transmitter of the world, reliable, excellent audio quality CD, stereo and single band audio processor Card available.

The EX01 MiniStation is a complete FM exciter with low external dimensions. The equipment has the same characteristics found in a FM exciter with more power. The Hi-Fi VCO of exciters like 1kW power is same of EX01. Eight varicap diodes are modulating the FM carrier, more punch and more brilliance might be noted with this modulator.

The EX01 is very indicated for micro-power FM station, for who needs to transmit musics from PC, only connecting the audio cable to this exciter.

Also, application like audio transmitter for churchies, theatres and audio returning for music bands are suitable, you only must have a pocket FM receiver to do this.

The EX01 is available in American, European and also Japanese bands only pressing the overset of the equipment.

On the LCD, 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. Very friendly interface is found in this exciter, easy to understand and operate.

The AC input is universal full-range switched mode power supply, facilitating this way the main connections around the world.

If you have an external audio processor, the EX01 could be connected directly to this equipment, only setting the MPX selection to external.

An audio processor card is available to connect in. If you have the need to transmit controlled audio level, this card must be acquired.

The EX01 is a complete solution, offering superior audio performance and quality.

Get more information about EX01 in the following pages!

#### Sintek Next RF Systems

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Developed and manufactured by  
Sintek Next - Brasil

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#### EX01 LCD panel - some configurations...

FM FREQUENCY:  
103,6MHz st

Channel change directly on the front panel.  
You can choose the frequency from 87,5 to 108,1MHz.

F-0000000000 95%  
R+0 05%

Forward and Reverse power are shown in real-time in percents. Automatic reducing power level when exceeded the SWR limit.

AUDIO MODULATOR:  
%> 00000000

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.

L-0000000000  
R>000000

Left and Right audio levels are monitored in this view. You can know if both channels are ok.

INTERNAL MPX:  
>STEREO MONO

You can select if the audio transmission is in Stereo or Mono only pressing the button UP/DOWN.

MPX SELECTION:  
>INT. EXT.

External audio processor or STL links might be connected, only setting to External MPX.

CONFIG\_HOLD:  
>ENABLE DISABLE

After configured the patterns you want, you can choose this option to ENABLE, this way nobody get to modify your personal configurations.

#### EX01 Front panel overview:



#### EX01 Visual-cabinet overview:



#### EX01 Rear Panel overview:



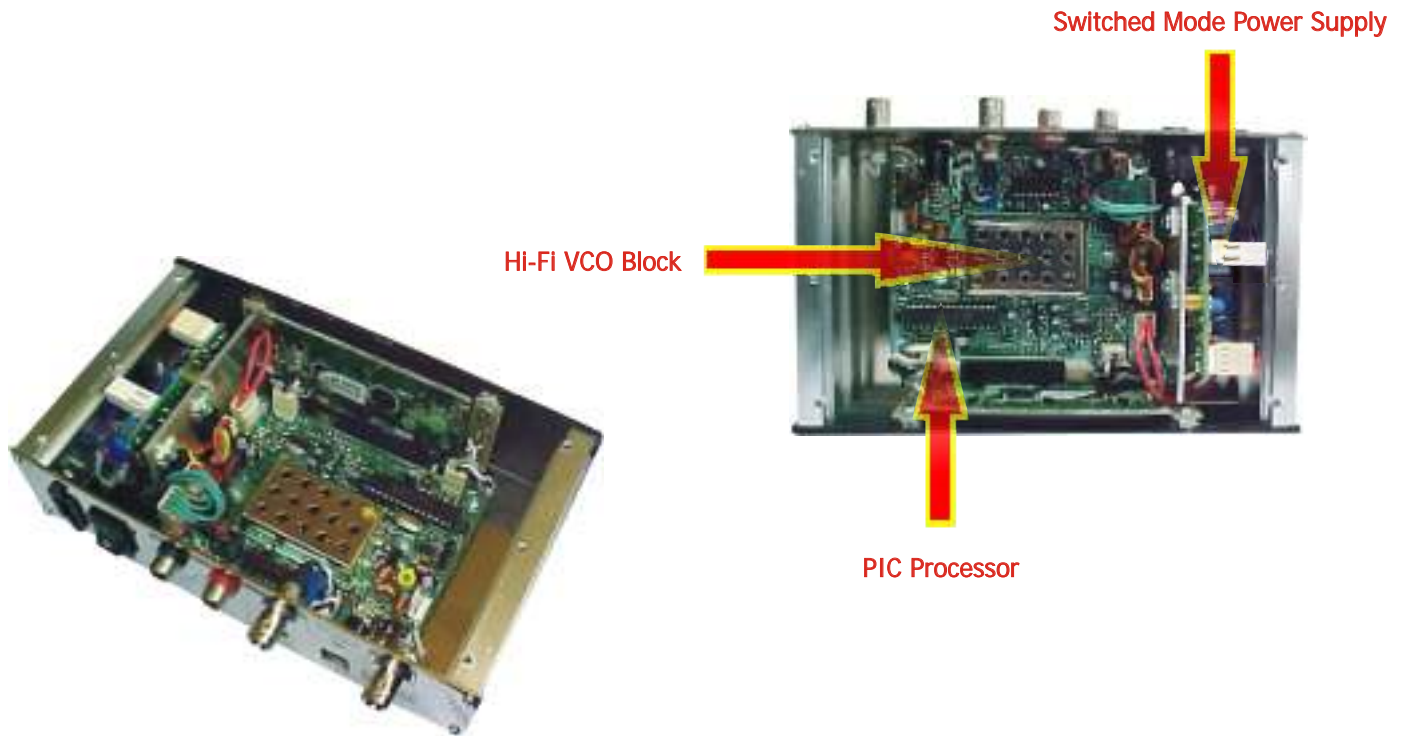
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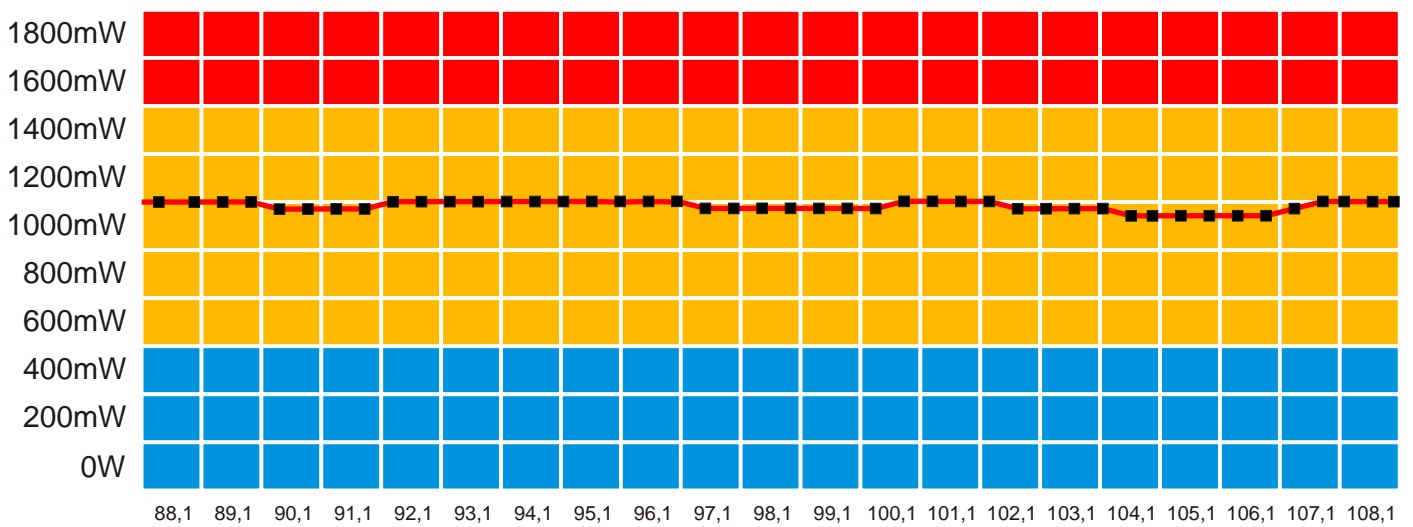
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EX01 Internal Overview:



RF Power Output:



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### Technical Features:

#### RF Features:

Output Power:	1W +/- 5% variation across the band
RF Output Impedance:	50 Ohms
RF Output Connector:	BNC Female
Frequency Range:	76,0 to 98MHz and 87,5 to 108,1MHz
Frequency Step:	Default 100KHz, selectable for 200kHz or others under request
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:	>80dBc
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:	Universal Full-Range 85 to 265VAC 47 to 63Hz
DC Input:	+15V 1A DC
AC Surge Protection:	1 Varistor 285V and fuse
Power Supply Efficiency:	85% or better in 220V AC
Switching Frequency:	100kHz
Power Consumption:	Approximately 2W from AC
AC Input Connector:	CS8 connector

#### General Features:

Weight:	460grs net weight
Dimensions:	178mm (6") wide, 44,45mm (1,5") high, 100mm (4") 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 Ex01 Software V.1.0
Memory:	Non-volatile, retention >40 years
Full Micro-controlled protections:	PLL out of lock, VSWR exceeded
Panel Keys Control:	UP/DOWN freq. St or Mono, Int or Ext MPX, Config Hold
LCD Display:	16 colums, 2 lines, green back light

#### Audio Inputs Left&Right:

Input Connectors:	RCA Female
Internal Jumper selection for:	50 or 75us stereo pre-emphasis
Input Impedance:	10k Ohms unbalanced
Frequency Response:	20Hz to 15kHz (THD+N < 0,1%)
Input Level:	0dB for 75KHz carrier deviation
Stereo Separation:	Better than 45dB @ 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

\*Specification subject to change without notice

### Sintek Next RF Systems

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