

# **N3282**

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## **Full Range Agile Tunable Modulator**

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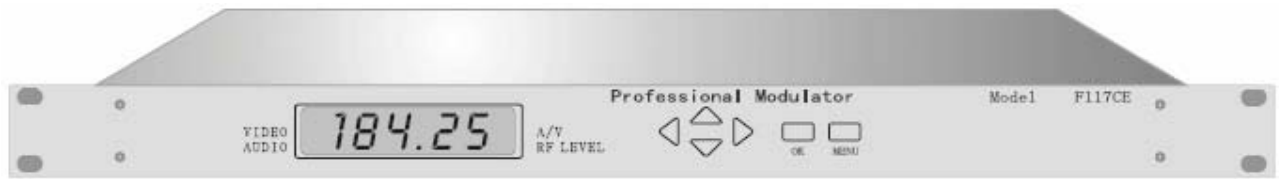
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### ***User Manual***



**XIAMEN NAGASIMA ELECTRONIC EQUIPMENT CO LTD**

## Audio & Video Modulator



### Features

- 45-870 MHz frequency range
- 5 digits LED
- 12C bus-mastering
- GaAs Component used
- Front panel control board to adjust frequency, modulation level, A/V ratio, volume, RF signal level through the LED by turning keys
- High C/N, reliable and easy to operate.

### Specifications

#### RF

<b>Frequency range:</b>	45 to 870.00MHz
<b>Frequency Stability:</b>	5 KHz
<b>Frequency stepping:</b>	250KHz
<b>Output Level:</b>	≤108dB u V (max)
<b>Level adjustment range:</b>	20dB ( 1-32 levels adjustable )
<b>Output Impedance:</b>	75 ohm
<b>Spurious Output:</b>	-60dB
<b>Output return loss:</b>	14dB
<b>C/N:</b>	in band 65dB (min 62dB) adjacent channel 68dB (min 65dB) out-of-band 60dB
<b>A/V carrier ratio:</b>	-13 to -20dB ( 8 levels adjustable )

#### Video

<b>Standard input level:</b>	1.0V p-p
<b>Video input impedance:</b>	75Ω
<b>Visual S/N:</b>	50 dB
<b>Video Response:</b>	1.5 dB
<b>Differential gain:</b>	2.5%

<b>Differential phase:</b>	2.5°
<b>Chrominance luminance delay:</b>	40nS
<b>Video modulation level:</b>	87.5%
<b>Video clamping:</b>	25dB
<b>Modulation level:</b>	1-32 levels adjustable

#### Audio

<b>Input level range:</b>	+5 to +25dBmv
<b>Input Impedance:</b>	≥10kΩ
<b>Frequency response:</b>	1.5dB
<b>Aural S/N:</b>	52dB
<b>Audio distortion:</b>	0.4%
<b>Sound frequency:</b>	6.50, 6.00, 5.50, 4.50MHz optional
<b>Maximum sound frequency deviation:</b>	50KHz
<b>Pre-emphasis:</b>	50 u s
<b>Audio level:</b>	1-32 levels adjustable

#### General

<b>Power :</b>	110V/60Hz
<b>Operating Temperature:</b>	-10°C to +40°C
<b>Dimensions:</b>	19"(W) X 7.8"(D)X1.75"(H)
<b>Weight:</b>	about 2.5Kg

(Specifications subject to change without notice.)

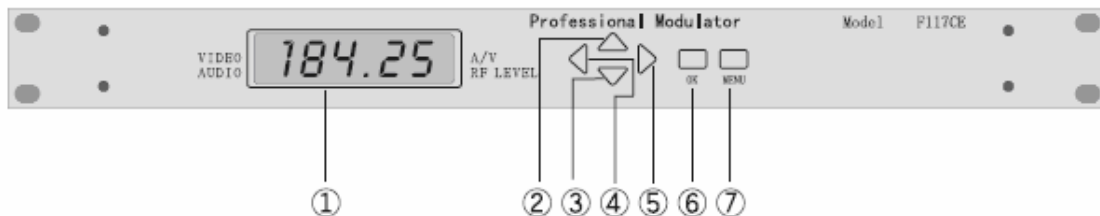
## Installation and Operation Guidelines

### Before Use

Before packing and shipment, every products was quality and durability tested and approved. After opening the box, please check to ensure all components are attached

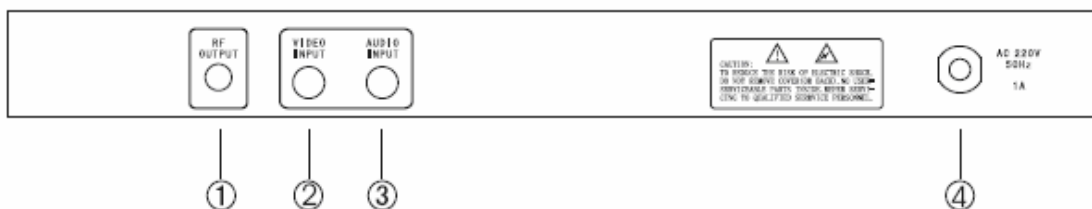
In case physical damage found, please notify distributor immediately. F117CE is designed to be ready to install in "EIA 19" type of cabinet.

### Front Panel



- |                                       |                            |   |
|---------------------------------------|----------------------------|---|
| ①、5 digits LED digital display screen | ④、Left/Function selection  | ▷ |
| ②、Upward/Value increasing key         | ⑤、Right/Function selection | ◁ |
| ③、Downward/Value decreasing key       | ⑥、OK/Confirmation key      |   |
|                                       | ⑦、MENU key                 |   |

### Rear Panel



- |   |   |
|---|---|
| ① "F" type connector output RF modulated signal | ③ BNC type connector input Audio signal |
| ② BNC type connector input Video signal         | ④ AC power supply 220V/50Hz socket      |

Operation Instruction

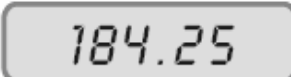
Stage one

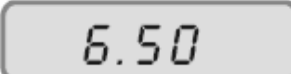
"Main Pages" under normal operation. Press "MENU" key to enter Stage two "Menu Page"

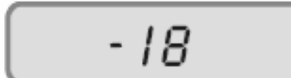
VIDEO AUDIO  A/V RF LEVEL Output frequency is 184.25MHz (standard eighth channel)

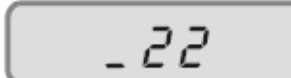
Stage two

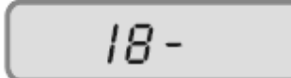
5 selection pages, which can be moved by pressing left key (◀) , right key (▶)

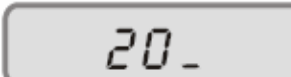
VIDEO AUDIO  A/V RF LEVEL 184.25 twinkles, to select suitable frequency by pushing upward key (Δ) or downward key (▽).

VIDEO AUDIO  A/V RF LEVEL 6.50 twinkles, to select suitable sound frequency by pushing upward key (Δ) or downward key (▽).

VIDEO AUDIO  A/V RF LEVEL To select suitable video modulation level by pushing upward key (Δ) or downward key (▽)

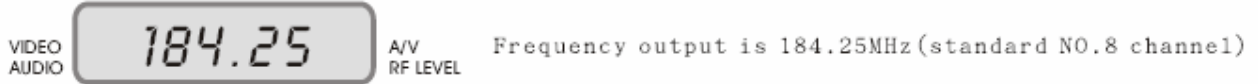
VIDEO AUDIO  A/V RF LEVEL To select suitable volume by pushing upward key (Δ) or downward key (▽)

VIDEO AUDIO  A/V RF LEVEL It shows A/V ratio is -18dB. To select suitable value by pushing upward key (Δ) or downward key (▽)

VIDEO AUDIO  A/V RF LEVEL To select suitable RF level by pushing upward key (Δ) or downward key (▽)

## Data Storage

When all data adjustment is over, press "OK" key, system starts to store data automatically. LED display screen shows "OK", then it will back to "Main Page" automatically.



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### Note:

- \* In case power off and restart, the modulators will operate according to last setting and storing data automatically (last data memory with power off).
  - \* To avoid affection from temperature changing, data adjusting should be started after the modulator has operated for half an hour.
  - \* When several modulators work together, appropriate space for ventilation is required.
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If problem occurs and persists, please contact your local authorized agent. Please do NOT disassemble the machine yourself and cause permanent damage.

## NOTE

If you have any questions or need further information, please feel free to contact us:

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