4CH 100MHz VF CONVERTER
(Rack Mount Type)
VF4-1H-02

USER'S MANUAL

#4491(ver.0) 2024.06.05

TSUJICON APPLICATION OF ELECTRONIC DEVICES

TSUJI ELECTRONICS CO.,LTD

3739 Kandatsu-machi Tsuchiura-city
Ibaraki-Pre 300-0013 Japan
Phone +81-(0)29-832-3031
Fax +81-(0)29-832-2662
URL https://www.tsuji-denshi.co.jp/
E-mail info2@tsuji-denshi.co.jp

4CH 100MHz VF Converter (AC220V version) Rack Mount Type
VF4-1H-02
User's Manual [Rev.0]

1. Feature

VF4-1H-02 is the 100MHz 2CH V-F Converter that is the Rack Mount type, and it supports AC220V power supply.

It has the four-levels amplification factor switch and the polarity selector switch.

VF4-1H-02 is easy to be monitored.

i.e., the over-range and polarity are displayed on LED and also outputted as open-collector outputs.

Therefore, V-F conversion is always performed at the optimum conditions.

2. Specification

Channels	4CH
Input Range	-10V/-5V/-2.5V/-1V/+1V/+2.5V/+5V/+10V
Input	Single-end
Input Impedance	1MΩ
Output Range	100MHz/50MHz/25MHz/10MHz
Output	TTL level ※ Please use 50Ω termination to reduce the reflected wave.
Conversion Accuracy	±0.01% FS
Inpur Sampling Frequency	1MHz
Response	10μs or less
Input Connector	BNC connector
Output Connector for Frequency	LEMO connector (equivalent to EPL00250NTN)
Over-Range output	Open collector (normaly close), isolated
Over-Range output Connector	BNC connector
Power supply	AC220V
Case	EIA-2U: 88H x 482W x 430D

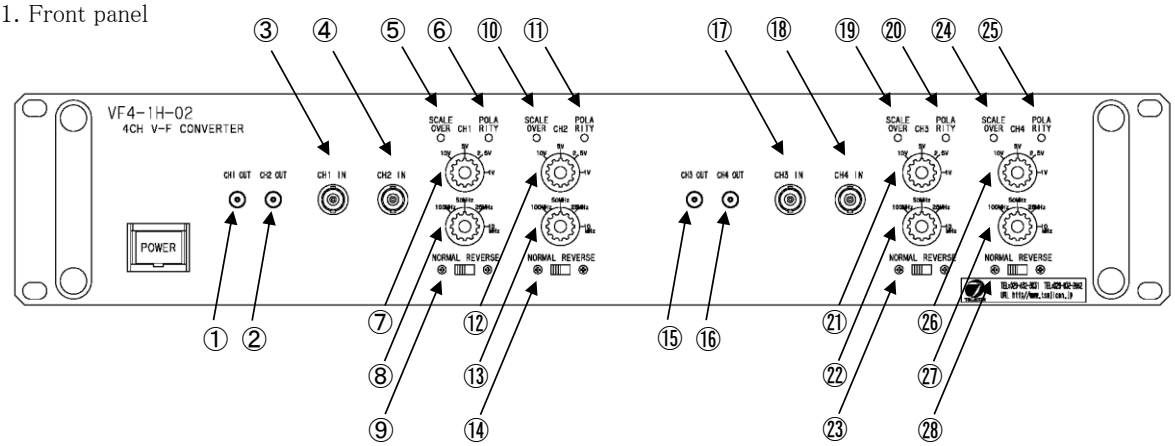
3. Before using

Before using, please power about 2 hours on for a warm-up.

The frequency deviation becomes large, if warm-up has not been made.

4. Usage

4-1. Front panel



① CH1 Output connector (frequency, LEMO, LVTTL level)

② CH2 Output connector (frequency, LEMO, LVTTL level)

③ CH1 Input connector (voltage, BNC)

④ CH2 Input connector (voltage, BNC)

⑤ CH1 Scale over LED

LED lights on when the input level exceeds conversion level.

⑥ CH1 Input polarity LED

LED lights on if the voltage input polarity is different from the setting.

⑦ CH1 Input voltage range select SW

Select input voltage range.

⑧ CH1 Output frequency range select SW

Select output frequency range.

⑨ CH1 Polarity select slide-SW

NOM: (+), REV: (-)

⑩ CH2 Scale over LED

⑪ CH2 Input polarity LED

⑫ CH2 Input voltage range select SW

⑬ CH2 Output frequency range select SW

⑭ CH2 Polarity select slide-SW

⑮ CH3 Output connector (frequency, LEMO, LVTTL level)

⑯ CH4 Output connector (frequency, LEMO, LVTTL level)

⑰ CH3 Input connector (voltage, BNC)

⑱ CH4 Input connector (voltage, BNC)

⑲ CH3 Scale over LED

⑳ CH3 Input polarity LED

㉑ CH3 Input voltage range select SW

㉒ CH3 Output frequency range select SW

㉓ CH3 Polarity select slide-SW

㉔ CH4 Scale over LED

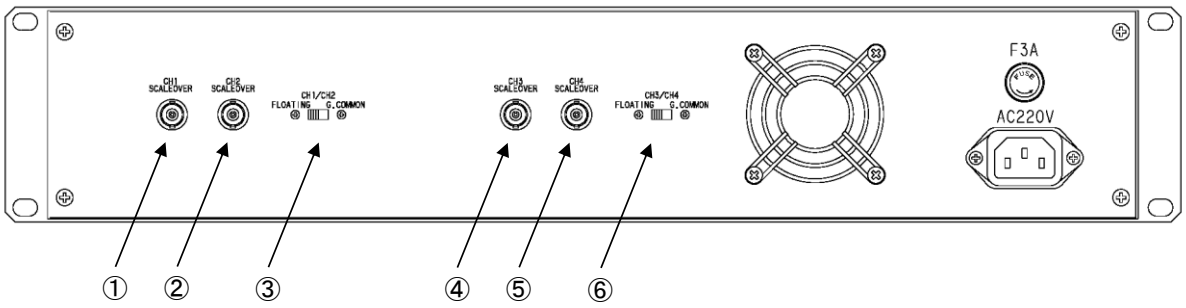
㉕ CH4 Input polarity LED

㉖ CH4 Input voltage range select SW

㉗ CH4 Output frequency range select SW

㉘ CH4 Polarity select slide-SW

4-2. Rear panel



① CH1 Scale over output connector (BNC)
Open collector output. It is isolated from the internal circuit.
Output becomes off if the voltage input is over than the setting.
(normaly close)

② CH2 Scale over output connector (BNC)

③ CH1/CH2 Changeover switch for choosing isolation or common between NIM GND and the internal circuit GND.
FLOTING: isolation, G.COMMON: common

④ CH3 Scale over output connector (BNC)

⑤ CH4 Scale over output connector (BNC)

⑥ CH3/CH4 Changeover switch for choosing isolation or common between NIM GND and the internal circuit GND.
FLOTING: isolation, G.COMMON: common