

The output signal from a photomultiplier tube can be directly input to the C9663 and it provides a voltage output signal with 50 Ω load at a conversion factor of 4 mV/μA. It can be used as a wide bandwidth amplifier not only for a photomultiplier tube but also for other detectors, or simply as a wide bandwidth amplifier.

FEATURES

- Wide Bandwidth: DC to 150 MHz
- Current-to-voltage Conversion Factor:
4 mV/μA at 50 Ω load resistance
- Rise Time: 2.3 ns (Typ.)
- Non-inverting Output
- Compact · Light Weight

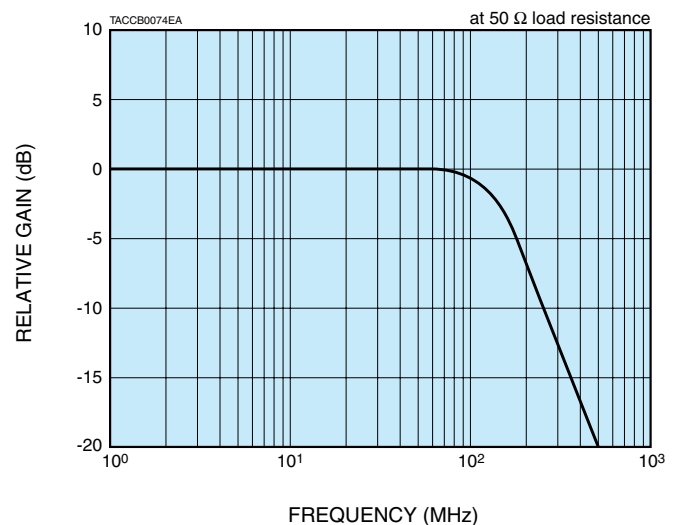
SPECIFICATIONS

| Parameter | | Description / Value |
|--------------------------------------|-----------------------|-----------------------------|
| Frequency Bandwidth (-3 dB) | | DC to 150 MHz |
| Voltage Gain [Ⓐ] | | 38 dB (Approx. 80 times) |
| Current-to-voltage Conversion Factor | Load Resistance: 1 MΩ | 8 mV/μA |
| | Load Resistance: 50 Ω | 4 mV/μA |
| Rise Time | Typ. | 2.3 ns |
| Input Polarity | | Positive / Negative |
| Amplifying Method | | Non-inverting Output |
| Input Impedance | | 50 Ω |
| Recommended Load Resistance | | 50 Ω |
| Maximum Output Signal Voltage | Load Resistance: 1 MΩ | ±3.0 V Min. |
| | Load Resistance: 50 Ω | ±1.4 V Min. |
| Output Noise Voltage [Ⓐ] | Typ. | 2.8 mV rms |
| Connector | Input | BNC-R |
| | Output | BNC-R |
| | Power | DIN (6-pin) |
| Power Supply Voltage | | ±5 V |
| Max. Power Supply Voltage | | ±6.5 V |
| Power Supply Current | Max. | ±80 mA |
| Operating Temperature | | 0 °C to +40 °C |
| Storage Temperature | | -15 °C to +60 °C |
| Weight | | Approx. 180 g |

NOTE: [Ⓐ]Load Resistance: 50 Ω

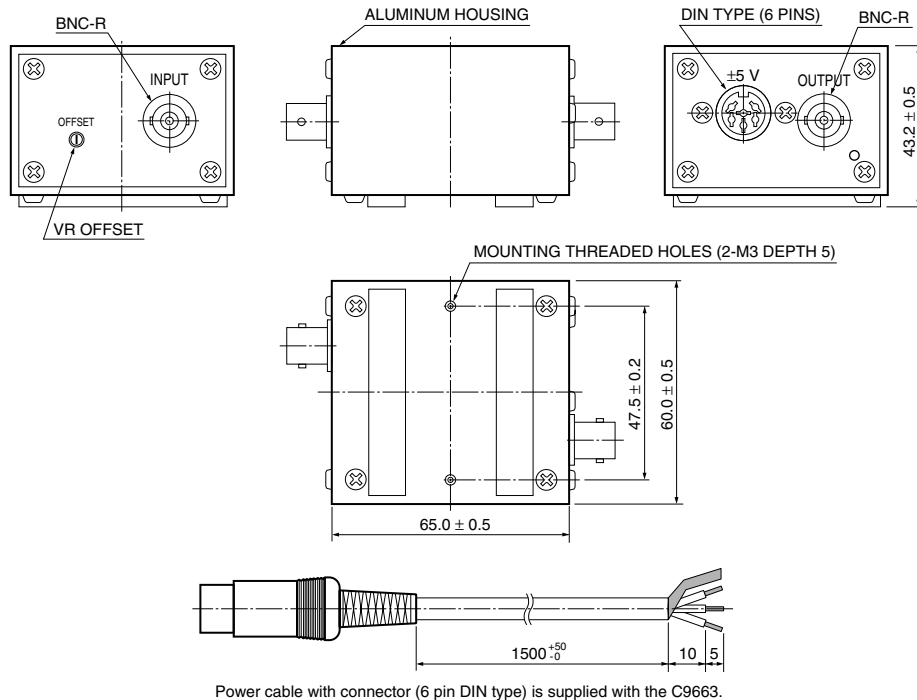


Figure 1: Typical Frequency Response



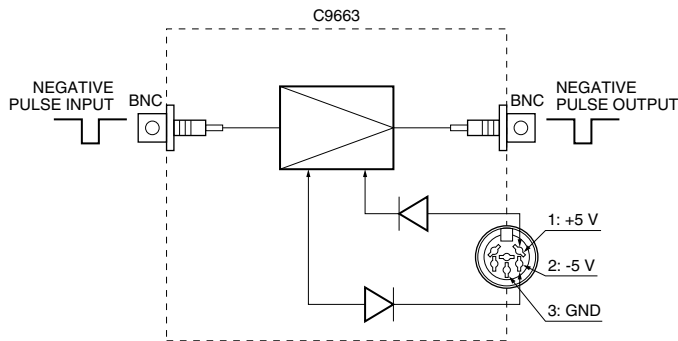
WIDE BANDWIDTH AMPLIFIER UNIT C9663

Figure 2: Dimensional Outlines (Unit: mm)



TACCA0308EB

Figure 3: Internal Connection Diagram



TACCC0148EA

| CONNECTOR PIN | WIRE COLOR | CONNECTION |
|--------------------|------------|------------|
| 1 | Red | +5 V |
| 2 | White | -5 V |
| 3 | Yellow | GND |
| 4 | — | — |
| 5 | — | — |
| 6 | — | — |
| External Conductor | Shield | GND |

RELATED PRODUCTS

AMPLIFIER UNITS SELECTION GUIDE

| Parameter | C7319 | C9999 | C6438 | C6438-01 | C9663 | C11184 | C5594 |
|--|--|--------------|--------------|--------------|---------------|---------------|-------------------|
| Frequency Bandwidth (-3 dB) | DC to 20 kHz or DC to 200 kHz (switchable) | DC to 10 MHz | DC to 50 MHz | DC to 50 MHz | DC to 150 MHz | DC to 300 MHz | 50 kHz to 1.5 GHz |
| Current-to-Voltage Conversion Factor (Load Resistance: 50 Ω) | 0.1 V/μA 1 V/μA, 10 V/μA (switchable) | 50 mV/μA | 0.5 mV/μA | 25 mV/μA | 4 mV/μA | 1.25 mV/μA | 3.15 mV/μA |

Refer to the individual catalogs for detailed information.

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