

# GT-W-AM6-75110

## Full W-Band Active Multiplier

### At a Glance

GT-W-AM6-75110 is a full W-band active  $\times 6$  frequency multiplier that extends 12.50–18.33 GHz input signals to 75–110 GHz, delivering up to 100 mW typical output power for W-band test and characterization.

Built for straightforward bench integration, it features an SMA-female RF input and a WR-10 waveguide output in a compact 200 × 180 × 100 mm enclosure, with 240 VAC supply support and an optional +10 VDC / 0.5 A power option.

With clean spectral performance (harmonic suppression to  $-25$  dBc, typical) and repeatable output under controlled conditions, it is well suited for W-band source extension, component verification, and system bring-up in both R&D and production test setups.



# GT-W-AM6-75110 Specifications

## Electronic Specification

Parameter	Min	Typical	Max
Input Frequency	12.50 GHz		18.33 GHz
Input Power	0 dBm	+4 dBm	+8 dBm
Multiplier Factor		X6	
Output Frequency	75 GHz		110 GHz
Output Power		100 mW	
Harmonic Suppression		-25 dBc	
Supply Voltage (AC)		240 V	
Supply Voltage (DC Option)		+10 V/0.5A	

## Mechanical Information

Item	Description
Input Connector	SMA - Female
Output Interface	WR-10
Dimensions	200 x 180 x 100 mm
	Note: Actual dimensions are subject to the physical product.

## Absolute Maximum Ratings

Parameter	Value
RF Input Power	+13 dBm
Operating Temperature	-10 ~ 40°C
Storage Temperature	-25 ~ 80°C

# GT-W-AM6-75110 Operating Procedure

## Power-On Sequence

- **Step 1 (ESD & Grounding):** Ensure the operator is wearing ESD protection (e.g., wrist strap) and the test bench is properly grounded.
- **Step 2 (Connections):** Connect the input signal source and output loads/instruments to the device using appropriate RF cables.
- **Step 3 (Power Up):** Connect the device to AC outlet and turn on the main power switch.
- **Step 4 (RF Output):** Set the desired frequency on the input signal source and press RF ON to start power output.

## Power-Off Sequence

- **Step 1 (Disable RF):** Important: First, turn OFF the RF output on the input signal source (disable RF ON).
- **Step 2 (Power Down):** Turn off the main power switch of the device.
- **Step 3 (Disconnect):** Disconnect power cords and RF cables if storing the device.(Optional)

## Safety Warnings



**ESD Risk:** Permanent damage may occur. Wear an ESD strap and ensure proper grounding. Keep away from dust.

**Read Manual:** Understand all specifications and conditions before use.

**Grounding:** Ensure all devices share a common ground to protect sensitive components.

**Connectors:** Avoid forced mating. Protect connectors during use and transport.

**Powering Sequence:** Connect all cables before powering on. Return to manufacturer for repairs, do not disassemble.

**No User Serviceable Parts:** Do not open the chassis or modify bias connections to avoid circuit damage.

**Emergency:** Power off immediately.

**Storage:** Store in a dry place.