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Data Sheet

July 30, 2026

TEKTRONIX

Tektronix TR502 Tracking Generator Module, 100 kHz to 1.8 GHz

Tektronix TR502 Tracking Generator Module, 100 kHz to 1.8 GHz The Tektronix TR502 is a two-wide TM500 Series tracking generator plug-in module. Tektronix documentation describes it as a constant, level-calibrated RF signal source that precisely tracks the tuned frequency of compatible 7000-Series spectrum analyzer plugins over 100 kHz to 1.8 GHz for swept-frequency stimulus/response measurements. The TR502/spectrum-analyzer system is intended for frequency-response testing of filters, amplifiers, and other RF devices connected between the tracking generator RF output and the spectrum analyzer RF input. In manual/CW mode it also serves as a stable CW source for the analyzer's tuned frequency. Low residual FM supports narrow-bandwidth response measurements. The Tektronix TR502 is a two-wide TM500 Series tracking generator plug-in module. Tektronix documentation describes it as a constant, level-calibrated RF signal source that precisely tracks the tuned frequency of compatible 7000-Series spectrum analyzer plugins over 100 kHz to 1.8 GHz for swept-frequency stimulus/response measurements. The TR502/spectrum-analyzer system is intended for frequency-response testing of filters, amplifiers, and other RF devices connected between the tracking generator RF output and the spectrum analyzer RF input. In manual/CW mode it also serves as a stable CW source for the analyzer's tuned frequency. Low re

No photo

MODEL

Tektronix TR502

CALIBRATION

**N/A — off-catalog
OEM datasheet**

CONDITION

**See OEM
documentation**

STATUS

**Not listed on
Aumictech
inventory**

RFQ / SKU

TR502

LISTING

**Off-catalog — OEM dat
asheet only**

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

Features & description

From manufacturer datasheet

Features

- Frequency range 100 kHz to 1.8 GHz
- Tracks spectrum analyzer tuned frequency
- Calibrated leveled RF output from 0 dBm to -59 dBm
- 10 dB and 1 dB step attenuators plus fine VAR dB control
- 50 Ohm output impedance
- Auxiliary RF output for counter monitoring
- Tracking-generator logic interface for frequency-dot marker support
- Two-wide TM500 plug-in form factor
- Compatible with 7L12, 7L13, and 7L14 spectrum analyzer plugins

TR502 Characteristics / Specifications

PARAMETER	VALUE
Model	TR502
Instrument Type	Tracking Generator Module
System Compatibility	TM500 Series power modules (typically Option 7 / Option 07), used with 7000-Series spectrum analyzers such as 7L12, 7L13, and 7L14
Frequency Range	100 kHz to 1.8 GHz
Tracking	Tracks the spectrum analyzer tuned input frequency across the stated range Output Level
Maximum Output (0 dBm position)	0 dBm +/-0.5 dB
Level Range	0 to -59 dBm in 10 dB and 1 dB steps
Relative Level Accuracy	+/-0.2 dB per 1 dB step to a maximum of +/-2.0 dB
Fine Attenuation	Front-panel control provides about an additional 2 dB of attenuation
Output Impedance	50 Ohm nominal
VSWR	2:1 or less to 1.8 GHz Flatness And System Performance
TR502 Flatness Alone	Within +/-0.65 dB from 100 kHz to 1.8 GHz
TR502/7L13 System Flatness	Within +/-1.65 dB from 100 kHz to 1.3 GHz and within +/-2 dB to 1.8 GHz
TR502/7L13 Dynamic Range	110 dB or more
Auxiliary RF Output	0.1 V rms minimum into 50 Ohm load; useful for connecting a frequency counter
Logic Interface	TRACK GEN LOGIC connector supports frequency-dot marker indication on compatible analyzers (for example 7L13) when used with the appropriate logic interface cable and TM500 Option 7 data-line wiring
LO Interface	Connects to spectrum analyzer 1st and 2nd LO outputs for tracking operation Form Factor And Installation
Form Factor	Two-wide TM500 Series plug-in
Typical Power Module	TM503 Option 07 or other compatible TM500 Option 7 mainframe
Retention	Held in the mainframe with a plug-in retainer arrangement as described in the instruction manual Operational Notes Compared with the TR501, the TR502 adds output attenuators and the logic interface needed for

PARAMETER

VALUE

dot-marker support. System hookup typically uses coaxial cables from the analyzer LO ports to the TR502 LO inputs, with the device under test inserted between TR502 RF OUT and the analyzer RF input. Higher-range counters to 1.8 GHz may be connected to AUX RF OUT.

Bandwidth

response measurements.

Attenuation

Front-panel control provides about an additional 2 dB of attenuation

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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TR502/7L13 System Flatness	Within +/-1.65 dB from 100 kHz to 1.3 GHz and within +/-2 dB to 1.8 GHz
TR502/7L13 Dynamic Range	110 dB or more
Residual FM (TR502/7L13, peak-to-peak): 10 Hz or less	
Auxiliary And Interface Features	
Auxiliary RF Output: 0.1 V rms minimum into 50 Ohm load; useful for connecting a frequency counter	
Logic Interface: TRACK GEN LOGIC connector supports frequency-dot marker indication on compatible analyzers	

(for example 7L13) when used with the appropriate logic interface cable and TM500 Option 7 data-line wiring
LO Interface: Connects to spectrum analyzer 1st and 2nd LO outputs for tracking operation

Form Factor And Installation

Specifications

PARAMETER	VALUE
Form Factor	Two-wide TM500 Series plug-in
Typical Power Module	TM503 Option 07 or other compatible TM500 Option 7 mainframe
Retention	Held in the mainframe withaplug-in retainer arrangement as described in the instruction manual

Operational Notes

Compared with the TR501, the TR502 adds output attenuators and the logic interface needed for dot-marker support. System hookup typically uses coaxial cables from the analyzer LO ports to the TR502 LO inputs, with the device under test inserted between TR502 RF OUT and the analyzer RF input. Higher-range counters to 1.8 GHz may be connected to AUX RF OUT.

Notes

This manual OEM source was compiled from the Tektronix TR502 Tracking Generator Instruction Manual (070-1735-00) and TekWiki product summary specifications.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: N/A — off-catalog OEM datasheet. See OEM documentation · Not listed on Aumictech inventory.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.