

STIT 1.2: Intelligent Three-Stub Tuner, R26 Waveguide

General Description

The STIT 1.2 Intelligent Three-Stub Tuner (Fig. 1) serves for manual impedance matching and, in connection with a water-load, for the realization of reflection coefficients in a wide range of the Smith Chart in the 2450 MHz ISM band. Based on the R26 (WR340) waveguide, the tuner basic design is derived from the HOMER-Series STHT 2450-MHz Autotuner. Each stub is equipped with a stepper motor and a top-travel terminal switch. The desired stub positions can be easily adjusted and monitored by a 3.2" color LCD display with a touch-panel. RS-232, RS422, or CAN interfaces are optionally available for remote control and monitoring.

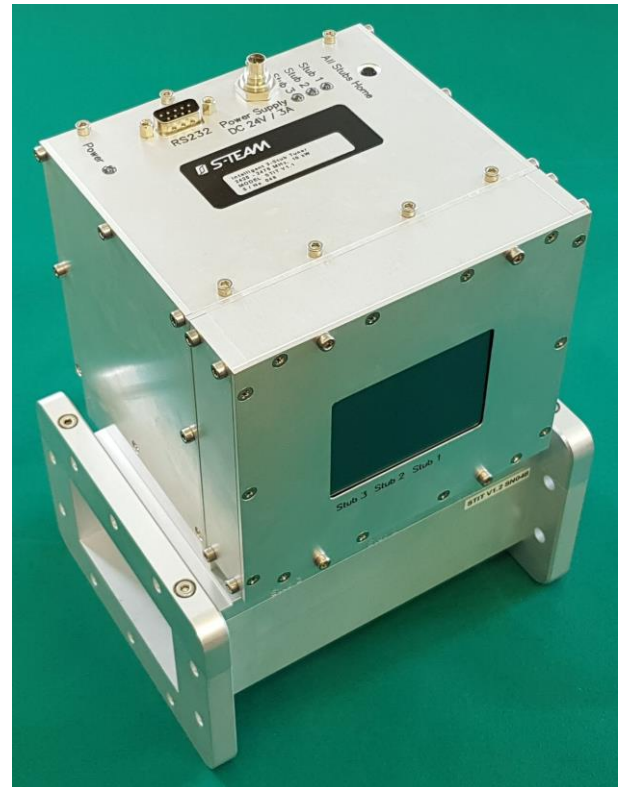


Fig. 1. Intelligent Three-Stub Tuner STIT 1.2.

Specifications

Waveguide type	R26 (WR340)
Flange type	IEC
Frequency range	2425 to 2475 MHz
Tuning range	VSWR \leq 10:1
Peak working power	10 kW ¹
Max tuning stub travel	25mm
Full stub insertion travel time	3.2 s
Power supply voltage	24 V \pm 10% DC
Peak current consumption (all stubs moving)	3 A
Interface	RS232 or RS422 or CAN
Display	3.2" Wide colour LCD with touch-panel
Operating temperature range	+15 °C to +50 °C
Storage temperature range	-10 °C to +70 °C
Mass	4.6 kg
Dimensions (L \times W \times H)	171 \times 138.2 \times 225.1 mm (6.73 \times 5.44 \times 8.86 inch)
Surface finish	E-CLPS 4600

Notes:

¹ Maximum working power is specified for **matched load** conditions. For loads with high reflection coefficient magnitude (>0.9), the maximum applied power must be lower to avoid arcing with deeply inserted tuning stubs.

Dimensional Drawing

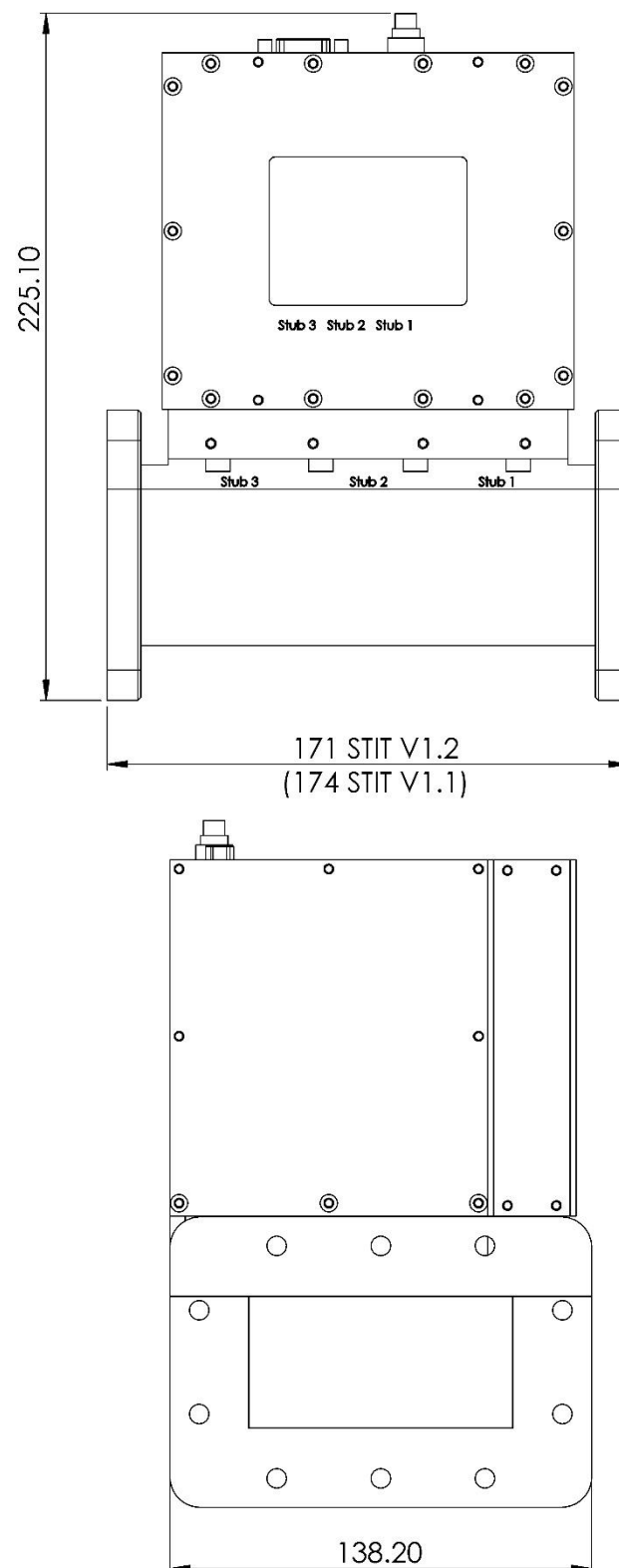


Fig. 2. Basic STIT dimensions (in millimeters).

Notes:

