RFbeam Microwave GmbH

K-DT1 RADAR Doppler Target

Product Information

Features

- Handheld K-Band Doppler Target Simulator
- Battery Operation
- Programmable Speed Range 1 ... 300km/h
- Programmable Movement Direction
- Programmable Signal Time
- 3 Programmable Presets
- Standalone or Hosted Operation
- USB Interface to Host Computer
- Compact and Rugged Construction
- DT1-Remote PC Software included



Applications

- Mobile Test Equipments
- Production Final Inspection
- Incoming Components Inspection
- System Tuning and Adjustment

Description

K-DT1 is a portable moving target simulator for K-band Radar transceivers. It can be used for calibrating and testing speed displays, door openers, safety systems and other radar based Doppler sensors. K-DT1 uses a circular polarized antenna. You can use K-DT1 in any orientation independently of the sensor orientation.

A software generated modulation signal allows generation of low distortion and directional Doppler signals from 44Hz to 13.4kHz corresponding to speeds from 1km/h to 300km/h.

Configuration Software

K-DT1 may be connected via USB to any Windows PC. The included DT1-Remote software allows realtime remote controlling and configuring the presets of the K-DT1.

RFbeam DT1-Remote								
File Help								
K-DT1 Found	Port COM23	Port COM23 K-DT1 Serial # 15460015 SW-Version V1.02 Nov 15 2016						
Live Setting [F4]	Preset Men	Preset Memory						
[F2] 140 180		PRESET 1	PRESET 2	PRESET 3	Unit			
Forward [F3] V 80 2	20 Default Preset							
Signal Amplitude	240 Direction	Forward	Forward	Backward				
	260 Speed	50	30	50	km/h			
	280 Amplitude	100	100	100	%			
	0 Duration	0 .0	0.0	0.0	sec			
50 13.9 31.1 2.23k km/h ♥								
Exit Copy >> Preset				SAV	/E Presets			

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Product Information

Characteristics

Parameter	Conditions / Notes	Symbol	Min	Тур	Мах	Unit	
Operating conditions							
Supply voltage	Battery	V _{ccBatt}	3.6	6	7	V	
	USB	V _{ccUSB}	4.5	5	5.5	V	
Supply current	Operating	Icc		340		mA	
	Standby	I _{cc0}		50		uA	
Battery Lifetime	Daily use 50 seconds, Alcaline cells	Top		1		Year	
Operating temperature	non condensing	Top	0		+60	°C	
Storage temperature		T _{st}	-20		+80	°C	
Doppler Simulator							
Frequency range	Transmit frequency of UUT	f _{TG}	24.000		24.250	GHz	
Doppler frequency range	Digitally adjustable	f _{Doppler}	44		13400	Hz	
Simulated speed range	Digitally adjustable	VDoppler	1		300	km/h	
Simulated speed resolution		r _{Doppler}		1		km/h	
Output power range	Adjustable simulated object distance	Pout	1		100	%	
Antenna gain				14		dBi	
Antenna polarization	Right hand circular polarized			RHCP			
Overall gain	For circular polarized tranceivers			38		dB	
	For linear polarized tranceivers			32		dB	
Out of band spurious					-30	dBm	
Aequivalent reflectivity	For circular polarized tranceivers	RCS _{circ}		800		cm ²	
	For linear polarized tranceivers	RCS _{lin}		200		cm ²	
Host Interface							
USB	Serial USB, Mini-USB connector						
Body							
Outline Dimensions				68x128x24		mm ³	
Weight	Including batteries		185			g	
Accessories							
Case protection, Softcase, USB Cable, USB Memory Stick, 4 AA-size Alkaline Cells, Windows Software "DT1-Remote"							

Ordering Information

Part #: RFbeam K-DT1

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