

## DF254A

# Economic Differential TDR Probe

Datasheet

### Description

DF254A grounded differential probe is a passive probe suitable for TDR (Time Domain Reflectometry) applications.

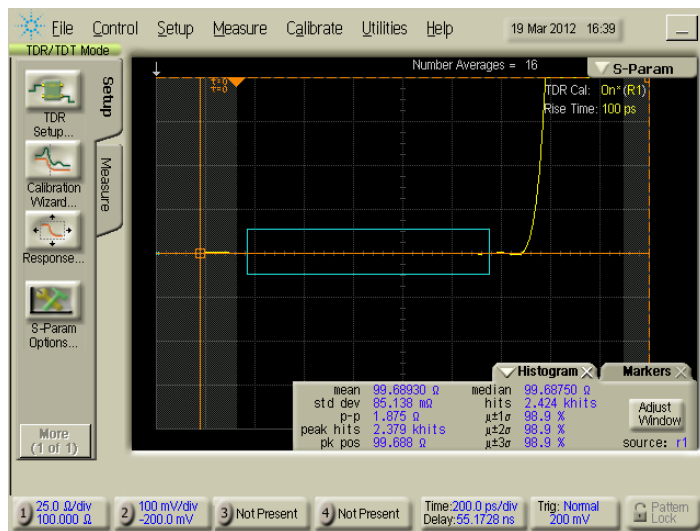
The ergonomic case design providing best ratio of width and thickness. The perfect matched ratio maintaining long-term operation comfort. An arrow sign at the front-end depicts the signal pins location and orientation.



Based on patented procedures, all DF254A were adjusted for near perfect impedance match to TDR equipments such as Keysight 86100D with 54754A TDR/TDT module. This can minimize mismatch effect and hence the better performance can be achieved.

The trace waveform at right represents the typical performance of connecting a probe to TDR modules.

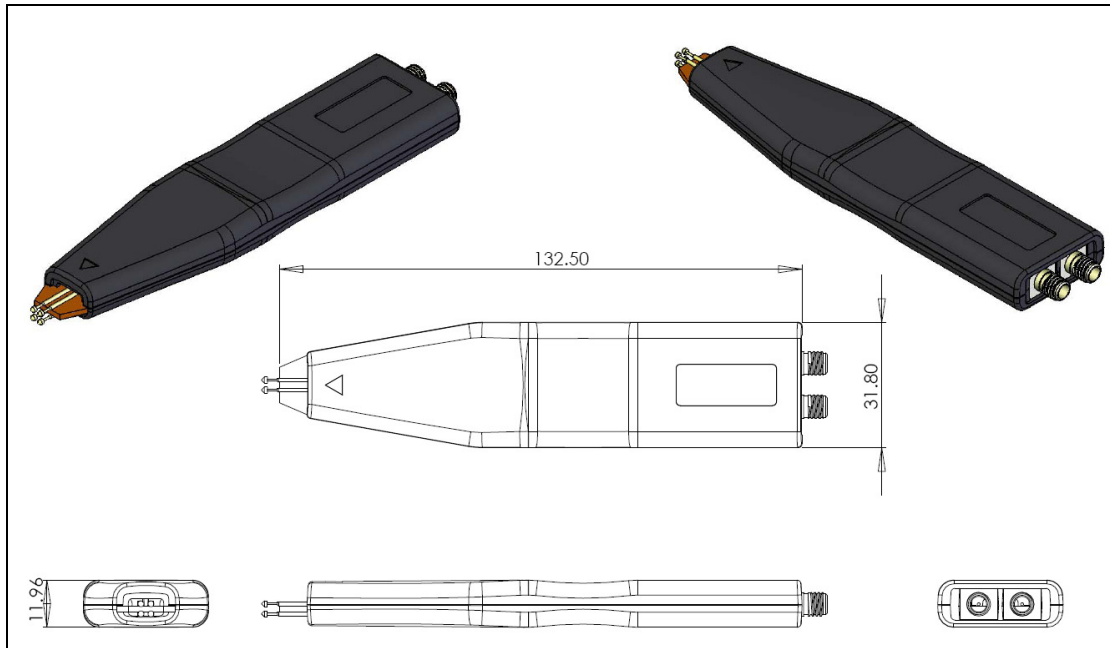
## Typical Characteristic Impedance



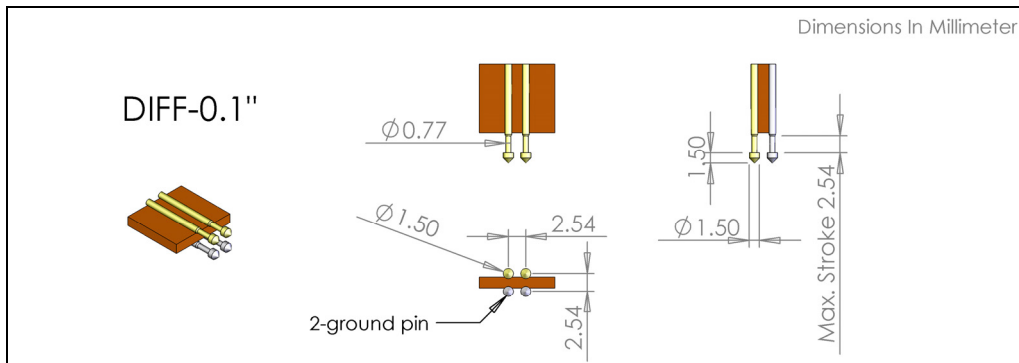
## General Specifications

Frequency range	DC to 6 GHz	
Impedance	100 ± 3 Ω, max.	
SMA launch bounce	100 ± 5 Ω, max.	
Probe tips pitch	Fixed pitch 0.1" (2.54mm)	
(ref. to order information)	Fixed pitch 0.14" (3.96mm)	
Typical spring life span	100,000 insertion	Tested at perpendicular position
Contact force	128g / pin, ± 20%	At full-stroke
	90g / pin, ± 20%	At 2/3 stroke
Tip shape	45-degree needle	
Probe finish	Gold plated	
Weight	38g, typical	Without cable
Connectors	SMA (f)	

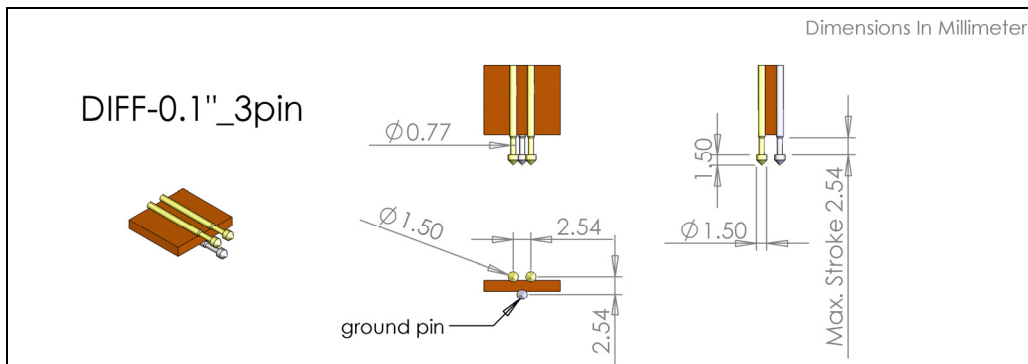
## Mechanical Dimensions (unit=mm)



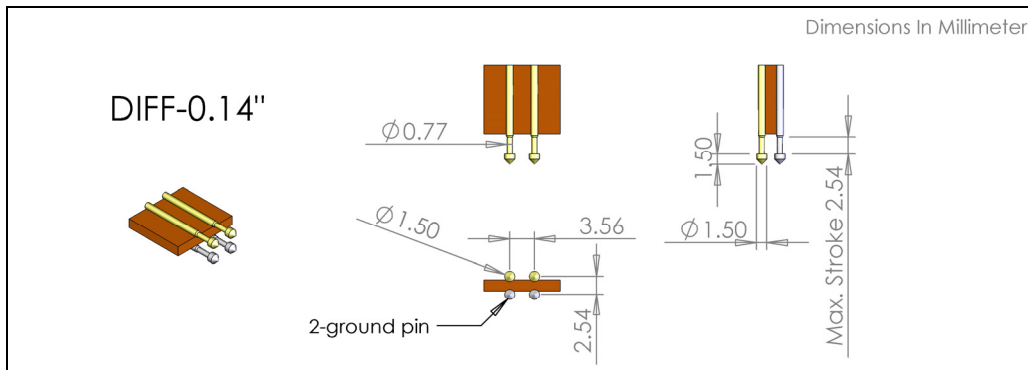
### DF254A-010



### DF254A-013



## DF254A-014



## Environmental Specifications

### Temperature

Operating	0°C to 55 °C
Storage	-40 °C to 70 °C

### Humidity

Operating / Storage	15 to 95% Relative Humidity (RH)
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## Ordering Information

Economic Differential TDR Probe	
DF254A-010	Fixed pitch 0.1" (2.54mm) vertical / horizontal orientation
DF254A-013	Fixed pitch 0.1" (2.54mm) vertical / horizontal orientation, 3-pin
DF254A-014	Fixed pitch 0.14" (3.56mm) vertical / horizontal orientation

Product specifications and descriptions in this document subject to change without notice.



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