

# World Leading High-Accurate Dk/Df Measurement System for Plate Material, 8.2 GHz - 140GHz

Model No. DPS10

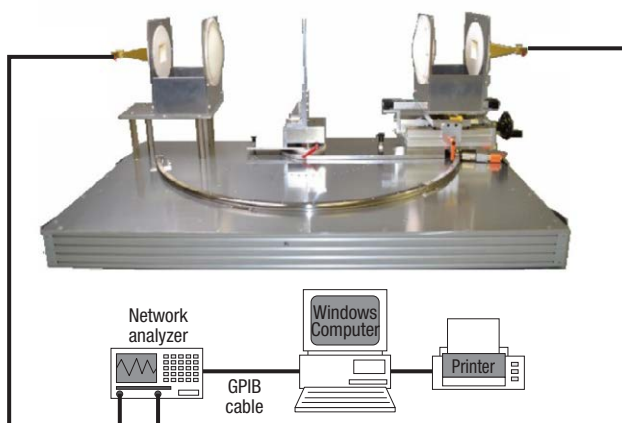
Keysight Technologies and KEYCOM Corp.

**Suitable for measurement of emblem, radome, tough and thick materials, metamaterials etc.**

This measurement system for permittivity /  $\tan \delta$ , transmission attenuation amount doesn't need anechoic chamber. Compared with S-parameter method, you just need 0 calibration and can measure specimens accurately including PTFE. Moreover, because there're fewer limitations to prepare specimens, you can easily check anisotropy and homogeneous distribution of materials.

## Specimen examples

- Emblem
- Radome
- Resin
- Glass
- GFRP
- Honeycomb materials
- Wood
- Cement
- Metamaterials etc.



Model : DPS10-01  
Frequency : 18-110GHz



## Specifications

- Frequency : 8.2-18GHz/18-140GHz
- Permittivity : 1.5 ~ 150
- $\tan \delta$  : 0.0001 ~ 20
- Accuracy:  $\pm 5\%$  (depending on VNA)
- Specimen size:
  - @18GHz 150mm x 150mm
  - @76.5GHz 100mm x 100mm

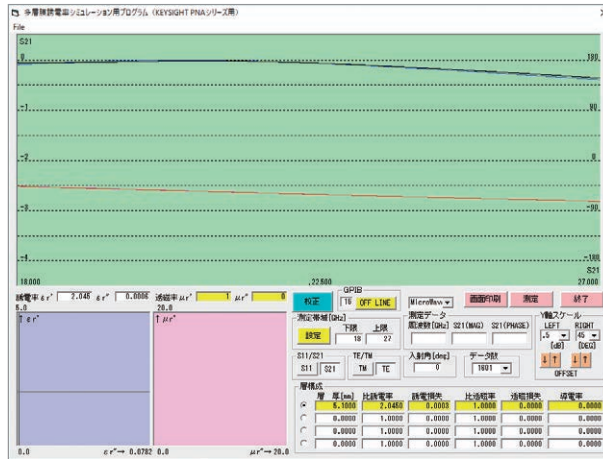
## Features

- Accurate measured value
- Simple procedure (0 calibration and measure)
- Easy to check anisotropy of specimens (Most of materials have anisotropy)
- Fewer limitations for specimens and easy to prepare

# World Leading High-Accurate Dk/Df Measurement System for Plate Material, 8.2 GHz - 140GHz

## Measurement example

Specimen : PTFE  
 Thickness : 5.1mm  
 Frequency : Around 20GHz  
 Result : Permittivity 2.045  
 tan  $\delta$  0.0003



## Ordering Information

Keysight Technologies



Vector network analyzer  
 PNA series (N52xx)  
 ENA series (E50xx)



Keysight Streamline Series  
 USB Vector Network Analyzers  
 (P937xA, P500xA)



E-band  
 network analyzer system  
 N5252A

KEYCOM Corp.

System No. DPS10

1. Main body	For 18GHz~140GHz DPS10-01/02 For 8.2GHz~18GHz DPS10-03
2. Antenna (with coaxial converter) 2pcs required	Frequency : 8.2-12.4GHz (WR-90) ..... RH90S19SMA(f)7 Frequency : 12.4-18GHz (WR-62) ..... RH62S22SMA(f)7 Frequency : 18-26.5GHz (WR-42) ..... RH42S23SMA(f)7 Frequency : 33-50GHz (WR-22) ..... RH22R23APC2.4(f)7 Frequency : 26.5-40GHz (WR-28) ..... RH28S23SMA(f)7
3. Antenna (with waveguide) 2pcs required	Frequency : 50-75GHz (WR-15) ..... RH15S10 Frequency : 60-90GHz (WR-12) ..... RH12S10 Frequency : 90-110GHz (WR-10) ..... RH10S10 Frequency : 110-140GHz (WR-6) ..... RH06S10
4. Calculation software for Windows	Software for Frequency change method ... DMP-002040619-015/
5. Multilayer plate simulation software for making designs of emblem and radome	Can simulate transmission attenuation amount of multilayer plate (max. 4layers) by using permittivity ( $\epsilon'$ ) and permeability ( $\mu'$ ). Can set angles of incidence, TM and TE wave. It is optimal simulation software for making designs of emblems.....SFW05

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

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