

## G-T1650

### high dielectric special ceramics powder PTFE High Frequency Copper-Clad-Laminate



#### Product Overview

GT1650 laminate is a composite material of special enforcement by glass fibre and added high dielectric special ceramics powder PTFE, which is suitable for wireless communications equipment antenna and so on. This type laminate is made of high-molecular polymer, easy to process, and it has excellent mechanical performance and good effect on the miniaturization of antenna, also it provides the required miniaturization for miniaturized antennas especially for microwave power dividers, power combiners, electronic amplifiers, filters, couplers and other components.

#### Main Features

- High Dielectric Constant
- Microwave Compoboard
- Low Dielectric Loss
- Hand type Reader Antenna
- Excellent Machining Performance
- Power Amplifiers、Filters And Couplers

#### Technical Specifications

Physical		
standard thickness	standard size	standard copper foil
0.005" (0.127mm)	48 X 36 (1220mm*914mm)	½ oz. (18µm) HTE (H/H)
0.010" (0.254mm)	24 X 18 (610mm*457mm)	1 oz. (18µm) HTE (H/H)
0.025" (0.635mm)	18 X 12 (457mm*305mm)	½ oz. (18µm) RTF (H/H)
0.050" (1.270mm)		1 oz. (35µm) RTF (1/1)

<b>Test Performance</b>					
Performance	Typical Value	Direction	Unit	Treatment Condition	Test Method
	GT1650				
DK	6.5±0.05	Z	-	10 GHz/23°C	IPC-TM-650 2.5.5.5
DF	0.003				
		0.004	Z	-	10 GHz/23°C
Temperature coefficient of Dk	-241	Z	ppm/°C	-50 到 150°C	IPC-TM-650 2.5.5.5
Volume Resistivity	2.0*105	XY	MΩ*cm	COND A	IPC-TM-650 2.5.17.1
Surface Resistivity	3.0*105		MΩ	COND A	IPC-TM-650 2.5.17.Q
Tensile Strength	220		Mpa(kpsi)	RT	ASTM D638
	32				
Bending Strength	289		Mpa(kpsi)		IPC-TM-650 2.4.4
	41				
Dimensional Stability	<0.5		mm/m		IPC-TM-650 2.4.39A
CTE	18/18/28	X/Y/Z	ppm/°C	-55 到 288°C	IPC-TM-650 2.4.41
TD	500				ASTM D3850
Thermal Conductivity	0.8	-	W/m/K	80°C	ASTM C518
Water Absorptio	<0.10		%	D24/23	ASTM D570
Density	2.6		gm/cm3	23°C	ASTM D792
Typical Peel Strength	>1.4		N/mm	H oz	IPC-TM-650 2.4.8
Flammability Rating	V-0				UL 94
Lead-Free Process Compatible	Yes				

## For More Information

Please visit our website: <http://www.gospell.com> or contact your local sales representative:

### GONTCERA Global Sales Center

Addr.: GOSPELL Industrial Park, Guanshandong Street, Suxian District, Chenzhou, Hunan Province, China

TEL: +86-735-2666666-8636

Mobile: +86-18073548780

FAX: 86-0735-2659922

E\_mail: [dengwl@gospell.com](mailto:dengwl@gospell.com)

©2016 GOSPELL Digital Technology Co., Ltd. All rights reserved.

The GOSPELL, GONTCERA logo are trademarks of GOSPELL Digital Technology Co., Ltd.,

All other trademarks mentioned in this document are the property of their respective owners.

Product pictures are for reference only, GOSPELL reserves the right to modify the specifications without prior notice.

**GONTCERA®**