

tec-speed 30.0 - VT-3703 / 3706

UL Approval: E214381 Version: B1

Laminate

General Information

- > Ceramic-filled PTFE composites
- > Low CTE for x, y and z axis
- > Low Dk (3.0) and high Dk (6.15) for options with extremely low Df
- > Tight Dk and thickness tolerance control

Application

- > 77~79GHz Automotive Radar
- > Power Amplifiers and Antennas for Wireless Communication
- > Satellite Communications

Availability

Laminate	VT-3703	VT-3706
Dielectric Thickness	0.005" (0.127mm) 0.010" (0.254mm) 0.020" (0.508mm) 0.030" (0.762mm) 0.060" (1.524mm)	0.005" (0.127mm) 0.010" (0.254mm) 0.025" (0.625mm) 0.050" (1.270mm)
Available Copper Type	HTE, RTF	HTE, RTF
Copper Thickness	Hoz, 1oz and 2oz	Hoz, 1oz and 2oz
Panel Size	18"*12" (457*305mm) 18"*24" (457*610mm)	18"*12" (457*305mm) 18"*24" (457*610mm)

Storage Condition & Shelf Life

Properties	Laminate	
Storage Condition	Temperature	Room
	Relative humidity	/
Shelf Life	24 months (airproof)	

Note: The prepreg exceeding shelf life should be retested.

CORPORATE HEADQUARTERS

Ventec Electronics Co. Ltd.
308 TaiShan Rd,
New District Suzhou,
Jiangsu, P.R. China 215129
T: +86 512-68091810
Email: sales@ventec.com.cn

EMEA REGIONAL HEADQUARTERS

Ventec Europe
Unit 1 Trojan Business Centre,
Tachbrook Park Estate,
Leamington-Spa, CV34 6RH, UK
T: +44 1926-889822
Email: sales@ventec-europe.com

AMERICAS REGIONAL HEADQUARTERS

Ventec USA
720 Lee St., Elk Grove Village,
Illinois, IL 60007,
United States of America
T: +1 630-4221627
Email: saleseast@ventec-usa.com

www.ventec laminates.com

tec-speed 30.0 - VT-3703 / 3706

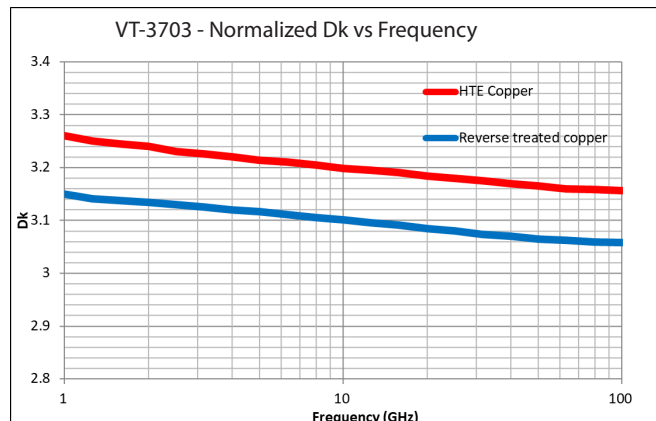
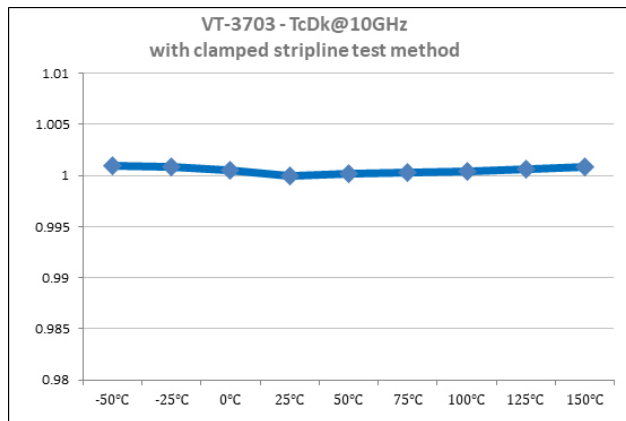
UL Approval: E214381 Version: B1

Laminate

Properties Sheet IPC-4103 /06 /07

Properties	Test Method	Units	VT-3703	VT-3706
Electrical Properties				
Dielectric Constant @10GHz	IPC-TM-650 2.5.5.5 Clamped Stripline	-	3.00 ± 0.04	6.15 ± 0.15
Design Dk	Differential phase method 8~40GHz	-	3.00	6.50
Dissipation Factor @10GHz	IPC-TM-650 2.5.5.5	-	0.0009	0.0019
Thermal Coefficient of Dk	IPC-TM-650 2.5.5.5 -50~150°C	-	-3	-260
Volume Resistivity	IPC-TM-650 2.4.24	MΩ-cm	8*10 ⁷	7*10 ⁵
Surface Resistivity	IPC-TM-650 2.4.24	MΩ	5*10 ⁷	4*10 ⁵
Thermal Properties				
Td	ASTM D3850	°C	520	520
Thermal Conductivity	ASTM D3850	W/mK	0.51	0.80
x, y-axis CTE	IPC-TM-650 2.4.24.5	ppm/°C	16/17	17/17
z-axis CTE	IPC-TM-650 2.4.24	ppm/°C	25	24
Specific Heat	Calculated	J/g/K	0.9	0.86
Mechanical Properties				
Peel Strength (1oz) After thermal stress	IPC-TM-650 2.4.8	lb/in (N/mm)	13.0 (2.28)	8.0 (1.40)
Tensile Modulus	ASTM D638	MPa	908 / 805	1500 / 1295
Physical Properties				
Density	ASTM D792	gm/m ³	2.1	2.6
Moisture Absorption	IPC-TM-650 2.6.2.1	%	0.04	0.02
Flammability	UL-94	Rating	V-0	V-0
Lead free process compatible	-	-	YES	YES
IPC-4103	-	-	/06	/07

All test data provided are preliminary typical values and not intended to be specification values.



CORPORATE HEADQUARTERS

Ventec Electronics Co. Ltd.

308 TaiShan Rd,
New District Suzhou,
Jiangsu, P.R. China 215129

T: +86 512-68091810

Email: sales@ventec.com.cn

EMEA REGIONAL HEADQUARTERS

Ventec Europe

Unit 1 Trojan Business Centre,
Tachbrook Park Estate,
Leamington-Spa, CV34 6RH, UK

T: +44 1926-889822

Email: sales@ventec-europe.com

AMERICAS REGIONAL HEADQUARTERS

Ventec USA

720 Lee St., Elk Grove Village,
Illinois, IL 60007,
United States of America

T: +1 630-4221627

Email: saleseast@ventec-usa.com

www.ventec laminates.com