

**Dk 3.36 Df 0.0029  
@13GHz**

**T<sub>g</sub> (DMA) 250°C**

**T320 (with copper)  
>120min**

**Applications**  
**Network / Wireless**

ICT Infrastructure Equipment, High Speed Networking (High-End Server/Router, Optical Network, Switch), High-Layer-Count PCB



Halogen-free  
**MEGTRON6**

Laminate

**R-5375(N)\* R-5375(E)**

Prepreg

**R-5370(N)\* R-5370(E)**

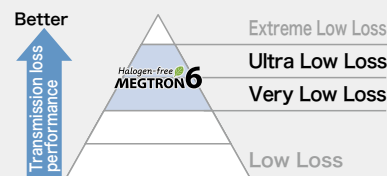
\*Low Dk glass cloth type

**Halogen-free ultra-low transmission loss multi-layer circuit board materials**

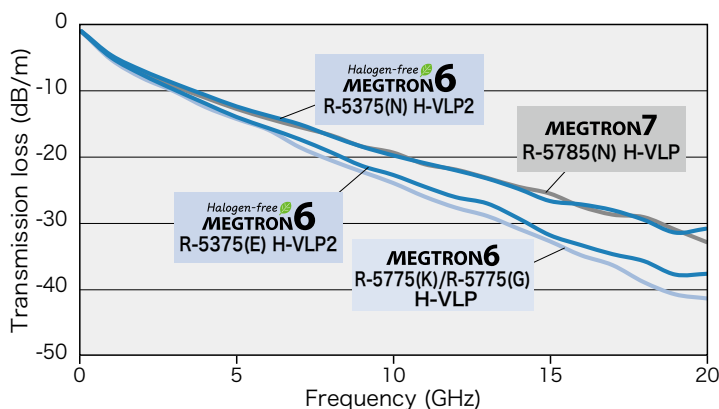
The industry standard high-speed, ultra-low loss material.

Transmission loss is between MEGTRON6 R-5775(K)/R-5775(G) and MEGTRON7 R-5785(N).

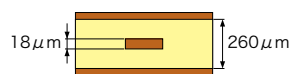
Excellent HDI and thermal performance.



## Frequency dependence by transmission loss



## Construction



Line length	200mm , 100mm
Line width	125µm
Impedance	50Ω
Inner Cu treatment	No-surface treatment
Core	0.13mm
Prepreg	#2116 56% x 1ply

## Heat resistance of high multi-layered Result

Drill diameter	φ0.3mm	
Wall to wall distance	0.3mm	0.5mm
Halogen-free MEGTRON6 R-5375(E)	pass	pass

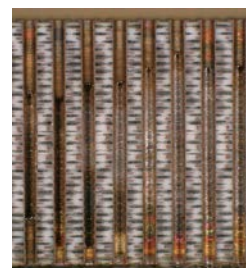
## Condition

260°C reflow x 10times

## Construction

32 Layers

Board thickness: 4.5mm



## General properties

Item	Test method	Condition	Unit	Halogen-free MEGTRON6 R-5375(N) Low Dk glass cloth	Halogen-free MEGTRON6 R-5375(E) E glass cloth	MEGTRON6 R-5775(K)/R-5775(G) E glass cloth	
T <sub>g</sub>	DMA (1Hz)	A	°C	250	250	210*1	
CTE z-axis	α1 / α2	IPC TM-650 2.4.24	ppm/°C	39/200	39/200	45/260	
T288(with copper)	IPC-TM-650 2.4.24.1	A	min	>120	>120	>120	
T320(with copper)				>120	>120	50	
Dk	13GHz	Balanced-type circular disk resonator method	C-24/23/50	-	3.36	3.66	
Df				0.0029	0.0037	0.0046	
Peel strength	1oz(35µm)	IPC-TM-650 2.4.8	A	kN/m	0.6*2	0.6*2	0.8*3

The sample thickness is 0.75mm.

\*1 10Hz \*2 H-VLP2 Copper \*3 H-VLP Copper

Please see our website for Notes before you use.

industrial.panasonic.com/www/electronic-materials

Panasonic Industry Halogen-free MEGTRON6

Our Halogen-free materials are based on JPCA-ES-01-2003 standard and others.

The above data are typical values and not guaranteed values.