

## PTFE覆铜板 (PTFE copper clad laminate)

产品编号：NYHP-255D/265D/300D, 聚四氟乙烯高频覆铜板系列

Item No : NYHP-255D/265D/300D, PTFE high frequency copper clad laminate series

### 特点:

- PTFE 高频材料
- 低介电常数、低介质损耗和良好的高频稳定性
- 较低的吸水率
- 优秀的尺寸安定性

### 应用领域:

- 低损耗基站天线
- 军事雷达
- 数字广播天线
- 功率放大器

### FEATURES:

- PTFE high frequency material
- Low permittivity 、low loss and excellent frequency stability
- Lower water absorption
- Excellent dimension stability

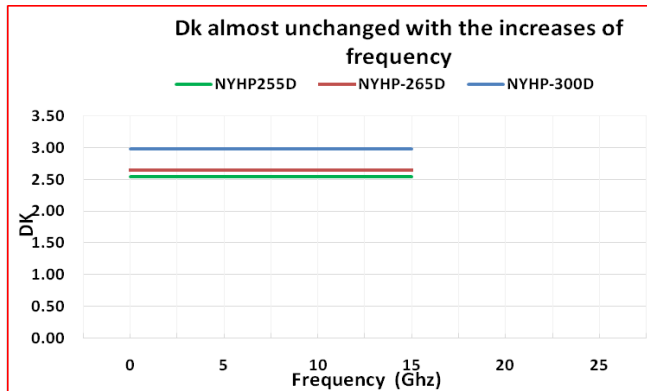
### APPLICATIONS:

- Low Loss Base Station Antenna
- Military Radar
- Digital Broadcasting Antenna
- Power Amplifier

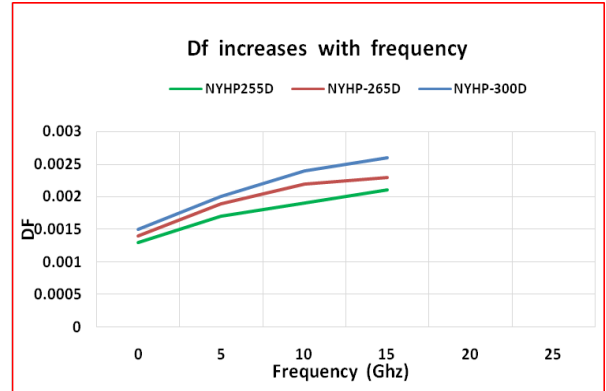
### 主要特性: Main features:

项目 Item	测试条件 Test condition	单位 Unit	典型值 Typical Value			
			NYHP-255D	NYHP-265D	NYHP-300D	
介电常数@10GHz Permittivity	IPC-TM-650-2.5.5.5	--	2.55	2.65	2.98	
介质损耗@10GHz Loss Tangent	IPC-TM-650-2.5.5.5	--	0.0019	0.0020	0.0023	
表面电阻 Surface Resistivity	IPC-TM-650-2.5.17	MΩ	$3.8 \times 10^7$	$4.0 \times 10^7$	$4.6 \times 10^7$	
体积电阻 Volume Resistivity	IPC-TM-650-2.5.17	MΩ-cm	$1.5 \times 10^9$	$1.8 \times 10^9$	$2.2 \times 10^9$	
热应力 Thermal Stress	288°C, solder dip	S	300S No Delamination	300S No Delamination	300S No Delamination	
热分解温度 Decomposition Temperature	5% wt loss	°C	> 500	> 500	> 500	
热膨胀系数 CTE	IPC-TM-650-2.4.24	PPM/°C	X	15	12	8
			Y	18	15	12
			Z	140	115	95
剥离强度 1OZ Peel Strength	IPC-TM-650-2.4.8	N/mm	> 1.8	> 1.8	> 1.8	
吸水率 Moisture Absorption	IPC-TM-650-2.6.2.1	%	0.04	0.05	0.05	
燃烧性 Flammability	UL94	Rating	V-0	V-0	V-0	
导热系数 Thermal Stress	ASTM D5470	W/m.K	0.29	0.30	0.55	
密度 Density	ASTM-D-792	g/cm <sup>3</sup>	2.20	2.21	2.25	

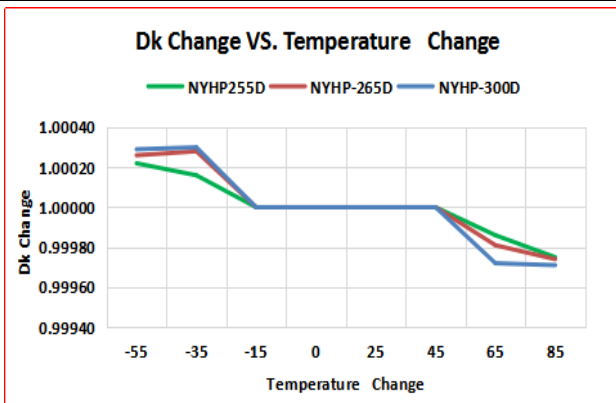
**Dk 与频率的关系 Dk vs. Frequency**



**Df 与频率的关系 Df vs. Frequency**



**Dk 变化率与温度的关系 Dk change vs. Temperature**



**板材厚度与公差 The thickness & Tolerance**

型号 (Model)	厚度 Thickness (mm)	厚度 Thickness (inch)	公差 Tolerance (mm)
NYHP-255D NYHP-265D NYHP-300D	0.254	0.01	±0.025
	0.508	0.02	±0.050
	0.762	0.03	±0.050
	1.016	0.04	±0.050
	1.200	0.047	±0.050
	1.524	0.060	±0.050
	2.000	0.079	±0.075

**板材尺寸 Standard Size**

型号 (Model)	大板尺寸 (inch) Sheet Size	大板尺寸 (mm) Sheet Size	PNL 尺寸 (inch) PNL Size	PNL 尺寸 (mm) PNL Size
NYHP-255D NYHP-265D	72×48	1830×1220	36×48	915×1220
NYHP-300D	80×48	2032×1220	40×48	1016×1220

注：可以根据客户要求的尺寸开 PNL 出货。

Remark: Other size could be available upon request.