



# IT-88GMW

**IT-88GMW- Next Generation Halogen free product for**

- 77 GHz. and 24 GHz. Automotive Radar
- 5 G Base Stations & mm wave applications
- Distributed Antenna Systems
- GPS satellite Antenna
- Point to point – microwave links
- Aerospace applications

**Features**

- Thermoset system with 200 °C Tg
- Very low loss ~0.0012-0.0014 at 10 GHz.
- Halogen Free
- Excellent dimensional stability
- Stable DK/Df with Temperature
- Ability to use very low profile Copper for reduced insertion loss.
- Highly suitable for Hybrids
- Ability to make high layer count boards
- Full prepreg offering

## Data sheet - IT88GMW

Property		Units	IT-88GMW-3.0	IT-88GMW-3.15	
			DK-3.0	DK-3.15	
THERMAL	Thickness	mm	0.125(5 mils)	0.125(5 mils)	
	Glass Transition Temp (Tg)	DMA	°C	200	206
		DSC		196	195
		TMA		184	186
	Time to Delam (T300)	With Cu	min.	> 60	> 60
	Solder Float		min.	> 60	> 60
	Solder Dip (PCT@1 hour and 121°C)		min.	> 60	> 60
	Thermal Decomposition Temp (5wt%)		°C	425	425
	CTE: RT-150°C	X-axis	ppm/°C	27.0	17.4
	CTE: RT-150°C	Y-axis	ppm/°C	27.0	17.8
	CTE:α1	Z - axis	ppm/°C	72	64
	CTE:α2	Z - axis	ppm/°C	350	284
CTE	Z - axis	%	3.80	3.20	
ELECTRICAL	Thickness	mm	0.125(5 mils)	0.125(5 mils)	
	Dielectric Constant (Dk)	@2GHz		2.99	3.15
		@3GHz		2.99	3.15
		@5GHz		2.99	3.15
		@10GHz		2.98	3.15
	Dielectric Factor (Df)	@2GHz		0.0012	0.0014
		@3GHz		0.0012	0.0014
		@5GHz		0.0012	0.0014
@10GHz			0.0012	0.0014	
PHYSICAL	Water Absorption		%	0.20	0.20
	Peel Strength	1 oz (HVLP)	lb/in	>4.0	>4.0
	Flammability	-	Second	V0	V0
	Thermal Conductivity		W/(mx° C)	0.42	0.53
	Elastic modulus	X-axis	GPa	8.40	12.20
Y-axis		GPa	8.40	12.30	