Series: **Multilayer Printed Wiring Board**

Type: **Multilayer Printed Wiring Board with Through-holes**

Multilayer PWB ; Both surface conductive layers and internal conductive layers are connected by plated through-holes
Industrial Property; Registered Patents – 8

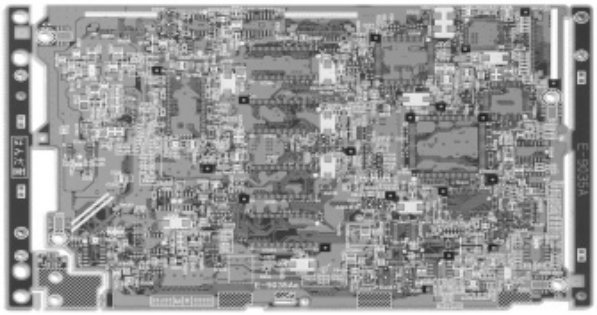
Type: **Multilayer Printed Wiring Board with Through-holes and IVHs**

Multilayer Printed Wiring Board with IVHs electrically interconnects between layer conductors with non-through via holes under chip land
Industrial Property; Registered Patents – 5

Type: **Build-Up Printed Wiring Board**

Build-up Printed Wiring Board is Multilayer PWB manufactured by build-up process that is piled up progressively with conductor layers and the insulating layers using the techniques such as plating and printing.

Japan
China
Taiwan
Thailand



■ Features

- Suitable for high density surface mounting
- Smaller board size by reducing through holes
- Noise reduction by shortening wiring length
- RoHS Compliant
  (Except solder pre-coated with including lead one)

■ Recommended Applications

- Notebook PCs, Cellular phones
- Video cameras, digital still cameras
- Digital TVs, STB, DVD recorders
- Automotive devices

■ Recognized Standards

UL Standard (File No. E36779)

● Multilayer Printed Wiring Board with Through-holes / Multilayer Printed Wiring Board with Through-holes and IVHs

Production site	Type UL	Flammability	Base	Conductor			Soldering Limits (°C), (S)	Rated Temp. (°C)
			ANSI Grade	min. Width (mm)	min. Edge Width (mm)	max. Width (mm)		
Japan	EMMM1	94V-0	FR-4	0.05	0.15	152	260, 20	105
	EMMM2	94V-0	FR-4	0.05	0.15	50.8		130
China, Taiwan	EMMM4	94V-0	FR-4	0.03	0.03	25.4	288, 12	130
Thailand	Please contact us about specifications.							

These values are not for PWB designing.

● Multilayer Printed Wiring Board of Halogen-free

Production site	Type UL	Flammability	Base	Conductor			Soldering Limits (°C), (S)	Rated Temp. (°C)
			ANSI Grade	min. Width (mm)	min. Edge Width (mm)	max. Width (mm)		
Japan	EMMM3	94V-0	FR-4	0.05	0.15	50.8	260, 20	130

These values are not for PWB designing.

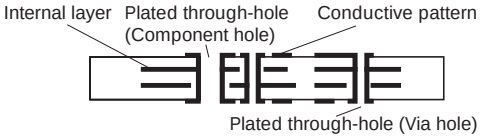
● Build-up printed Wiring Board

Production site	Type UL	Flammability	Base	Conductor			Soldering Limits (°C), (S)	Rated Temp. (°C)
			ANSI Grade	min. Width (mm)	min. Edge Width (mm)	max. Width (mm)		
Japan	EMMM5	94V-0	—	0.05	0.05	20	260, 20	105
Taiwan	EMXM1	94V-0	—	0.09	0.09	76.2		105

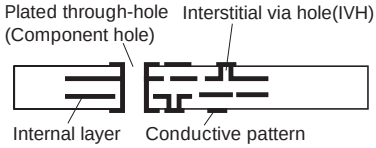
These values are not for PWB designing.

■ Construction

Type: **Multilayer Printed Wiring Board with Through-holes**



Type: **Multilayer Printed Wiring Board with Through-holes and IVHs**



Type: **Build-Up Printed Wiring Board**