

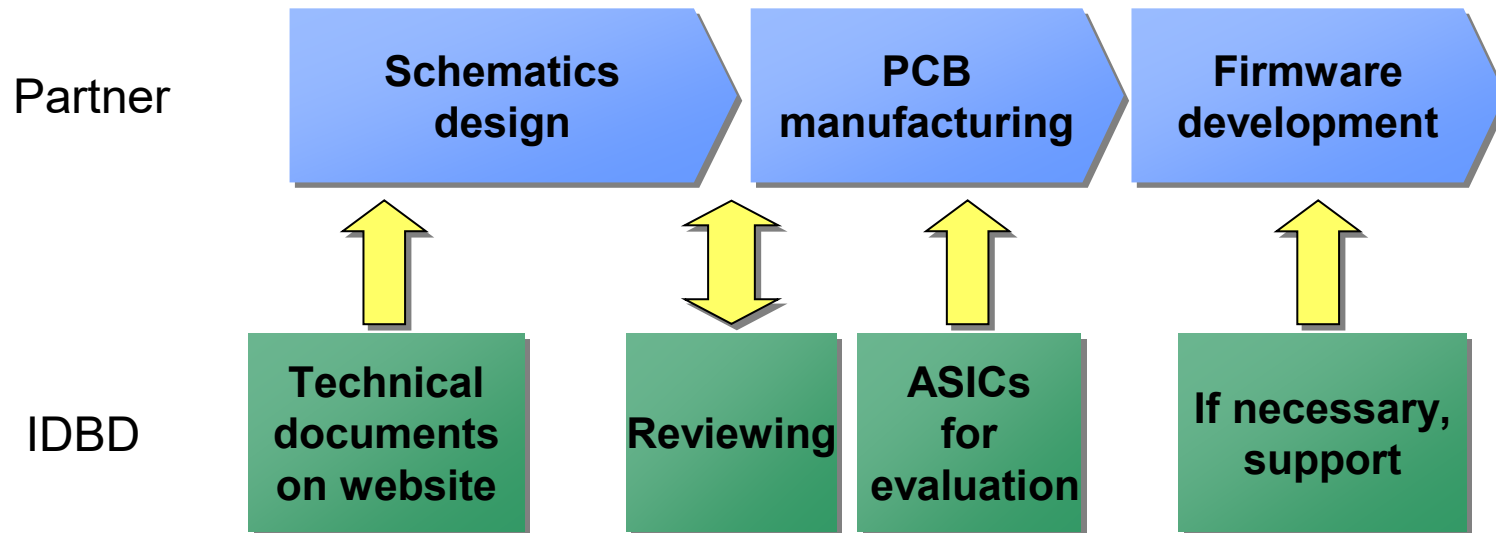
Note of Reference Schematics

31 March 2023

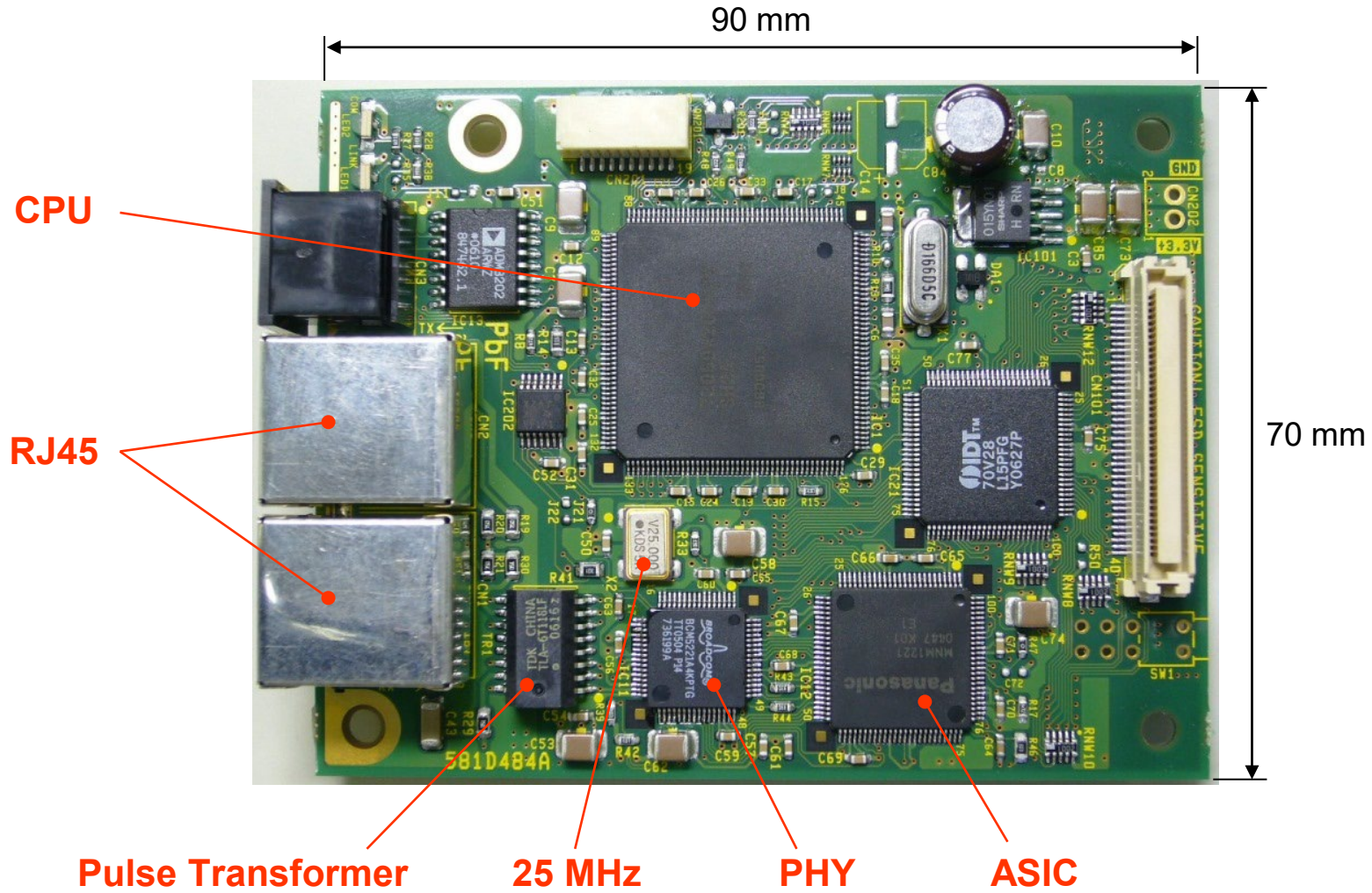
Motion Control Business Unit
Industrial Device Business Division
Panasonic Industry Co., Ltd.

Notes

- The schematics are provided for reference only.
If their mistake causes damage to you, we do not compensate at all.
- ASIC “MNM1221” is made by Industrial Device Business Division (IDBD).
- Before manufacturing PCB, please contact IDBD to review your schematics.



PCB Example



ASIC “MNM1221”



	Descriptions
Model No.	DV0P444-9
Packing Unit	90 pcs
Supply Voltage	3.0 to 3.6 V
Consumption Current	Max 100 mA (for reference)
Operating Ambient Temp.	-40 to 85 deg C
Clock Freq.	25 MHz
Package	LQFP100, 14 x 14 mm, Pin-pitch 0.5 mm
RoHS	Compliant
Modes	CPU needed: Master, Slave CPU-less: IN-slave, OUT-slave (Max 32-point)
Data-bus Width	Master: 32-bit (recommended) or 16-bit Slave: 16-bit (recommended) or 8-bit

Contact: Industrial Device Business Division, Panasonic Industry Co., Ltd.

Applicable PHY

	Broadcom BCM5221KPTG	TI DP83848I	TI DP83822I
Package	QFP64 10 x 10 mm	QFP48 7 x 7 mm	VQFN32 5 x 5 mm
Supply Voltage	3.0 to 3.6 V	3.0 to 3.6 V	3.15 to 3.45 V
Operating Ambient Temperature	-40 to 85 deg C	-40 to 85 deg C	-40 to 85 deg C
RoHS Compliant	Yes	Yes	Yes
Limitation of PHY Address	None	Do not use address #0.	None
MII Register Setting	No need	No need	Needed
In I/O slave without CPU	Applicable	Applicable	Do not use.

Notes:

1. Since we cannot provide PHY, please purchase it from distributors of the semiconductor manufacture.
2. It is necessary to use the pulse transformer matched with PHY.

Pulse Transformer

The pulse transformer TLA-6T118LF (TDK) described on MNM1221 datasheet or the reference schematics is no longer available.

Therefore, the following part should be used as a replacement.

Manufacturer: Bothhand

Part Number: - TS8121CM HF (Operating Temp.: -40 to 85 deg C)
- TS21C HF (Operating Temp.: 0 to 70 deg C)

This is an example.

Another part which matches the PHY can be used as well.

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