

# Engineer-To-Engineer

## Note EE-01

### Design Of A Common Fast Ethernet Magnetics Circuit For Use With Different E2Brain Modules

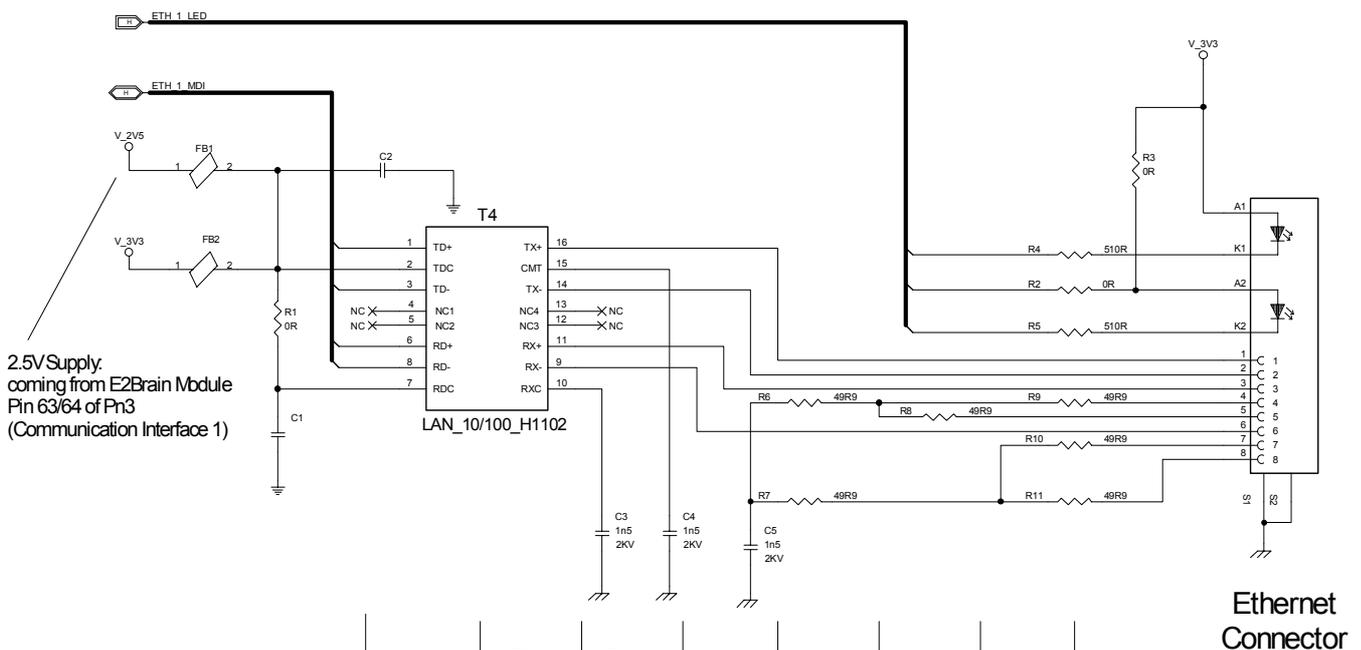
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#### Overview:

This note describes the design of a Fast Ethernet Magnetic Circuit which provides the flexibility to be used with different E2Brain Modules. Due to the fact, that various Ethernet Phys need also different Ethernet Magnetic Circuits even if they come from the same silicon vendor there is the demand to find a common circuit which could be used with all E2Brain modules by simply populating different parts. If you take this note into account, you have the flexibility to exchange E2Brain modules depending on the needed CPU performance.

#### Schematic 1:



E2Brain Modules	R1	FB1 Ferrit	FB2 Ferrit	C1	C2	R2	R3	used Ethernet Phy
EB8245	not equipped	not equipped	not equipped	equipped 100n	not equipped	equipped	not equipped	Intel 82559/82551
EB860, EB8540, EB8541, EB405	not equipped	not equipped	equipped	not equipped	equipped 100n	equipped	not equipped	Intel LXT972
EB425	equipped	equipped	not equipped	equipped 10n	not equipped	not equipped	equipped	Intel LXT973

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### Related Documents:

1. INTEL Application Note 407: **82558 to 82559ER Migration for Embedded Applications** Doc.Nr.:752228-002
2. INTEL GD82559ER Fast Ethernet PCI Controller Datasheet : Document Number:714682-001
3. INTEL LXT973 10/100 Mbps Dual-Port Fast Ethernet PHY Transceiver Datasheet: Doc.Nr.:249426-002
4. INTEL LXT972 3.3V Dual-Speed Fast Ethernet Transceiver Datasheet: Doc.Nr.:249186-003

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