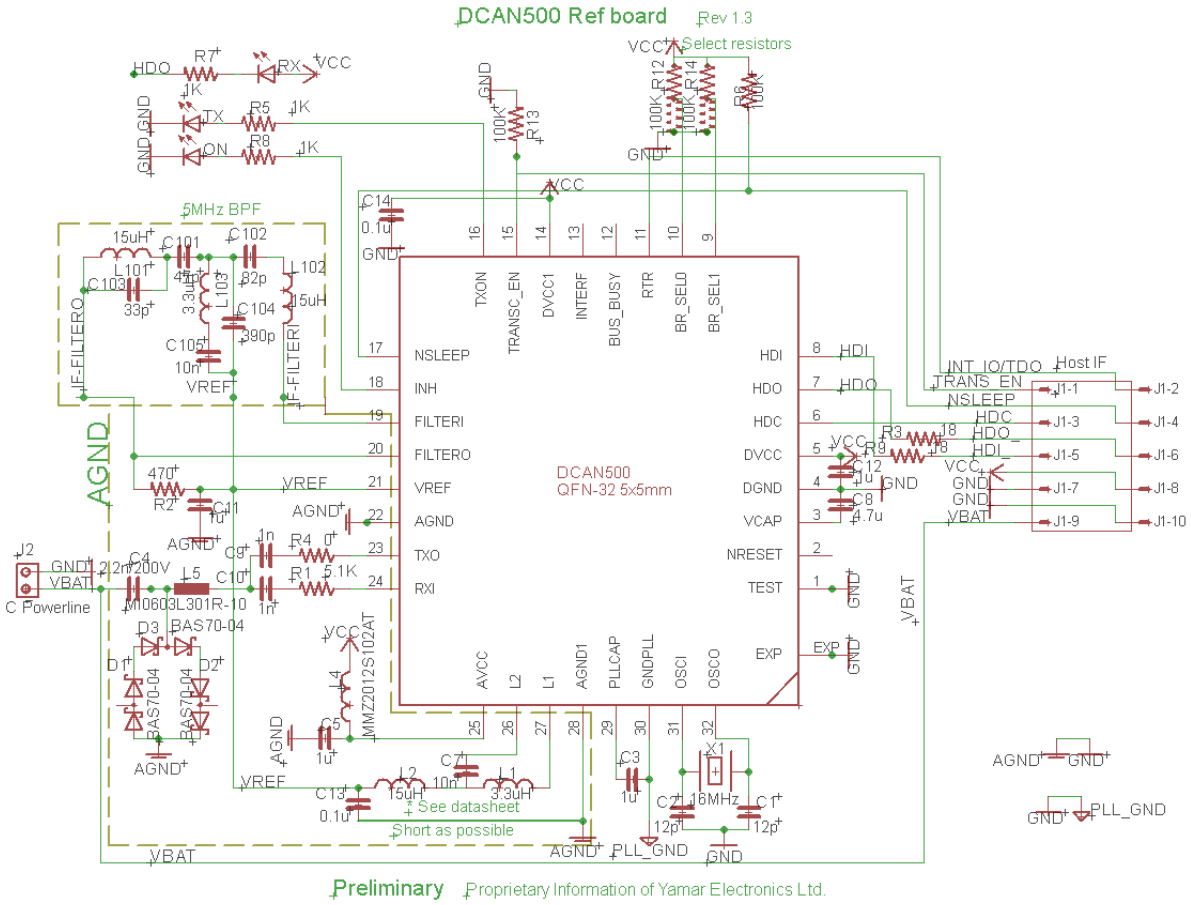
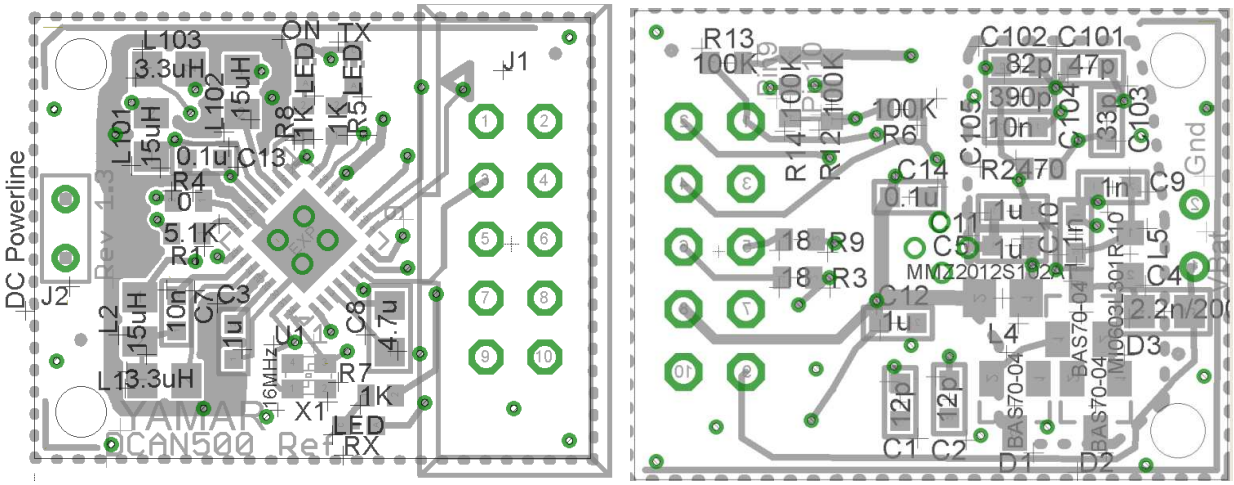
YAMAR	DCAN500 Ref Board R1_3 Assembly	www.yamar.com



See DCAN500 data sheet http://www.yamar.com/datasheet/DS-DCAN500.pdf



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DCAN500 Ref Board BOM Rev 1.1 28/11/2019

Qty	Value	Device	Package	Parts	Description
1	0	R0402	R0402	R4	RESISTOR 5%
1	5.1K	R0402	R0402	R1	RESISTOR 5%
1	100K	R0402	R0402	R13	RESISTOR 5%
4	100K	R0402-SW	R0402	R10, R11, R12, R14	Resistor 5% (switch)
1	470	R0402	R0402	R2	RESISTOR 5%
2	18	R0402	R0402	R3, R9	RESISTOR 5%
3	1K	R0402	R0402	R5, R7, R8	RESISTOR 5%
2	0.1u	C0603	C0603	C13, C14	CAPACITOR 5%
2	12p	C0603	C0603	C1, C2	CAPACITOR 5%
2	1n	C0603	C0603	C9, C10	CAPACITOR 5%
4	1u	C0603	C0603	C3, C5, C11, C12,	CAPACITOR 5%
1	2.2n/200V	C0805	C0805	C4	CAPACITOR 5% /200V
1	33p	C0603	C0603	C103	CAPACITOR 5%
1	390p	C0603	C0603	C104	CAPACITOR 5%
1	82p	C0603	C0603	C102	CAPACITOR 5%
2	10n	C0603	C0603	C7, C105	CAPACITOR 5%
1	47p	C0603	C0603	C101	CAPACITOR 5%
1	4.7u	C0805	C0805	C8	CAPACITOR 5% 6.3V
2	3.3uH	L0805	R0805	L1, L103	Abracon 815-AMIL-0805-3R3K-T
3	15uH	L0805	R0805	L2, L101, L102	Abracon 815-AMIL-0805-150K-T
1	MMZ2012S102AT	L0805	R0805	L4	TDK MMZ2012S102AT
1	MI0603L301R-10	L0603	L0603	L5 (optional)	For EMC
3	BAS70-04	BAS70-04	SOT23	D1, D2, D3	Silicon Schottky Diode
1	IC	DCAN500	QFN32	U1	YAMAR DCB1M
3	LED	LEDCHIP	CHIP-LED0	ON, TX, RX	LEDCHIP-LED0603
1	Crystal	16MHz	NX2016SA	X1	NDK NX2016SA-16MHz SMD, 2.0x1.6 mm
1	Host IF	057-010-1	057-010-1	J1	CONNECTOR
1	DC Powerline	MTA02-100	10X02MTA	J2	AMP connector

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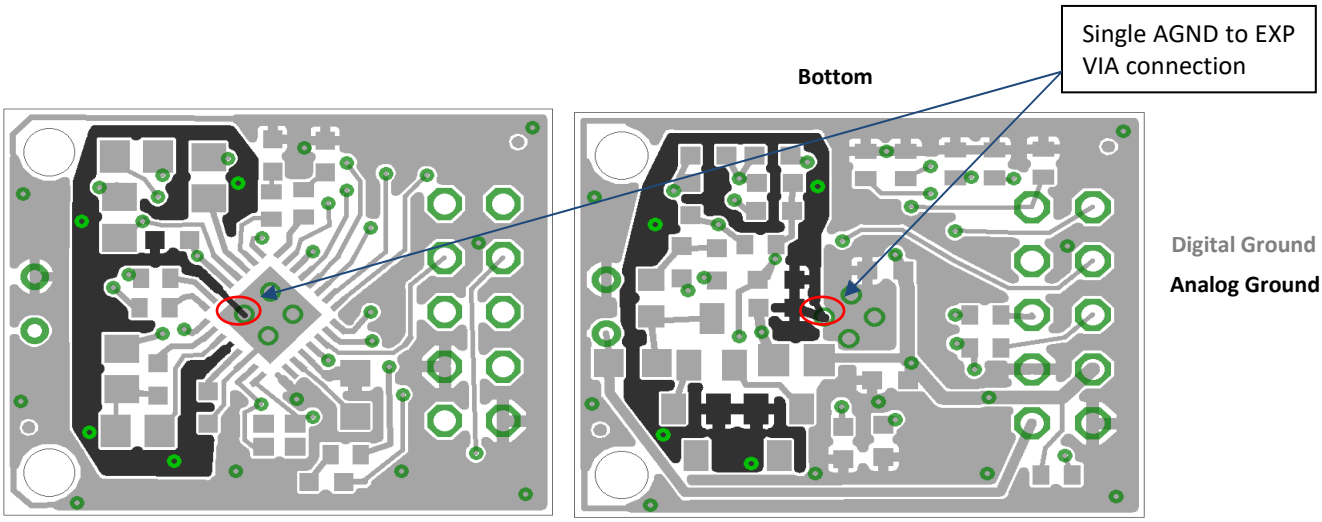
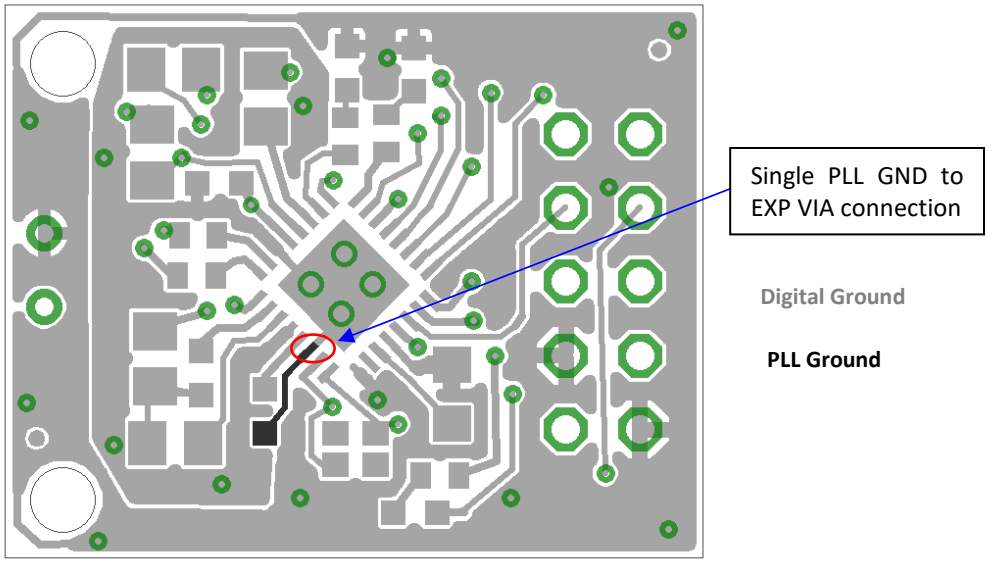
DCAN500 PCB layout recommendation

Note: Analog ground layer and GND PLL should be connected to the digital ground near the Exp pad.



TOP - PLL Ground connection to EXP



- ✓ VCC and DGND layout traces should be as wide as possible. Connect a 0.1uF capacitor between each VCC and DGND pins, as close as possible to the pins.
- ✓ It is recommended to keep the traces connecting the 3.3V power supply to VCC pins as short as possible with wide PCB traces.
- ✓ Connect AGND to EXP with a single short trace.
- ✓ Connect PLL_GND to EXP with a single short trace.
- ✓ Connect L1, L2, C13, and C3, C5, C7, C8, C11, and C12 as close as possible to their pins.
- ✓ Connect R1 as close as possible to RXI pin.
- ✓ Connect all filtering caps as close as possible to their pins.
- ✓ Connect crystal and its capacitors close to OSCI and OSCO pins. Keep DGND plan around them.

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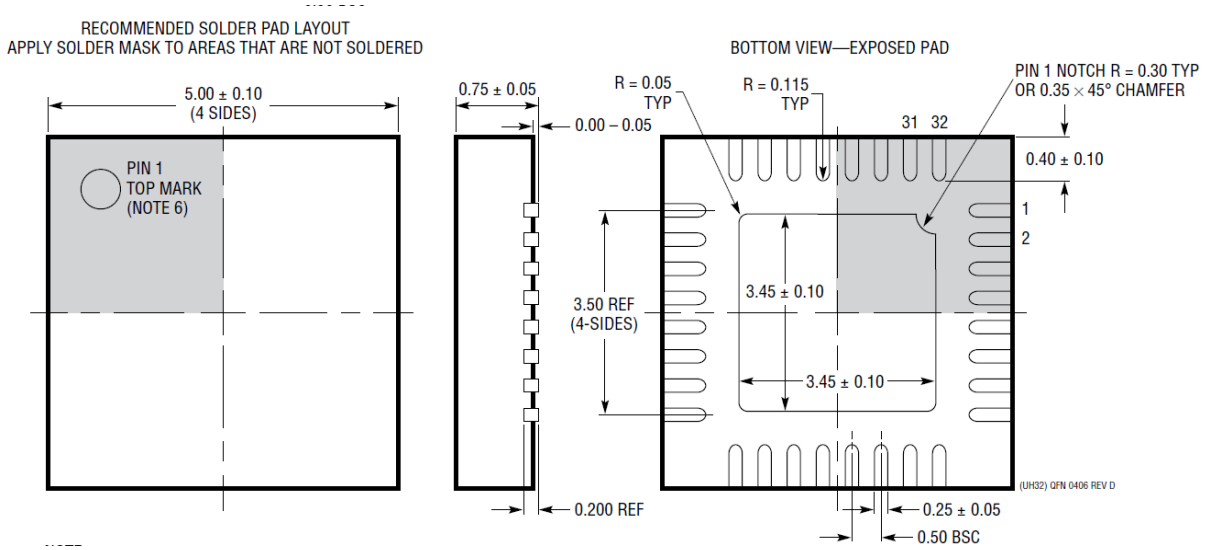
DCAN500 Package, Mechanical

The device package is QFN 32 5mm x 5mm.

Mechanical Drawing



PCB drawing