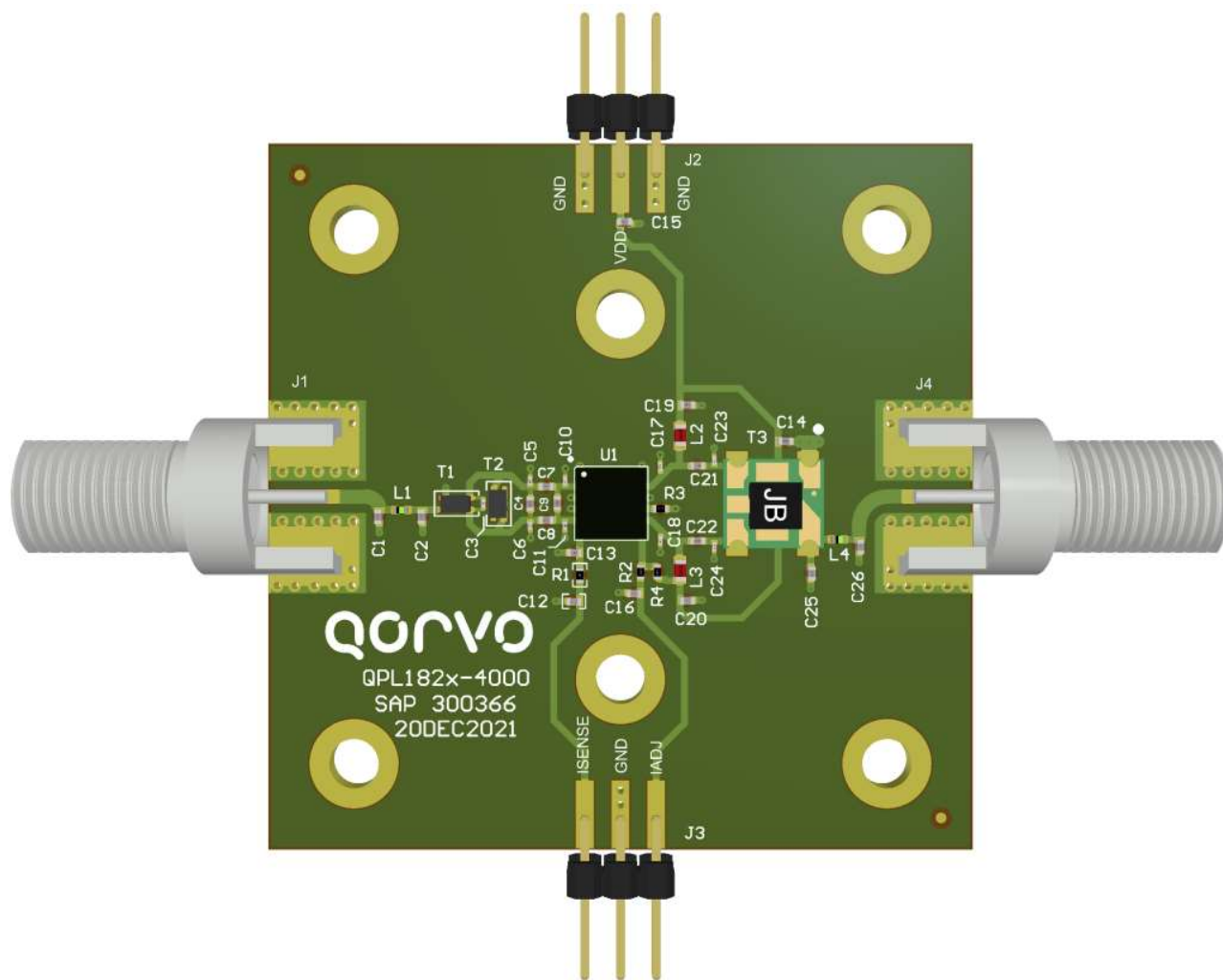


Evaluation Board Assembly Drawing



QPL1821 Evaluation Board

Layer Stack Legend

Material	Layer	Thickness	Dielectric Material	Type
	Top Overlay			Legend
	Surface Material			Solder Mask
CF-004	Top Layer	0.0007	SM-001	Signal
Core		0.0600	RO4003	Dielectric
CF-004	Bottom Layer	0.0007		Signal
Total thickness: 0.0618				

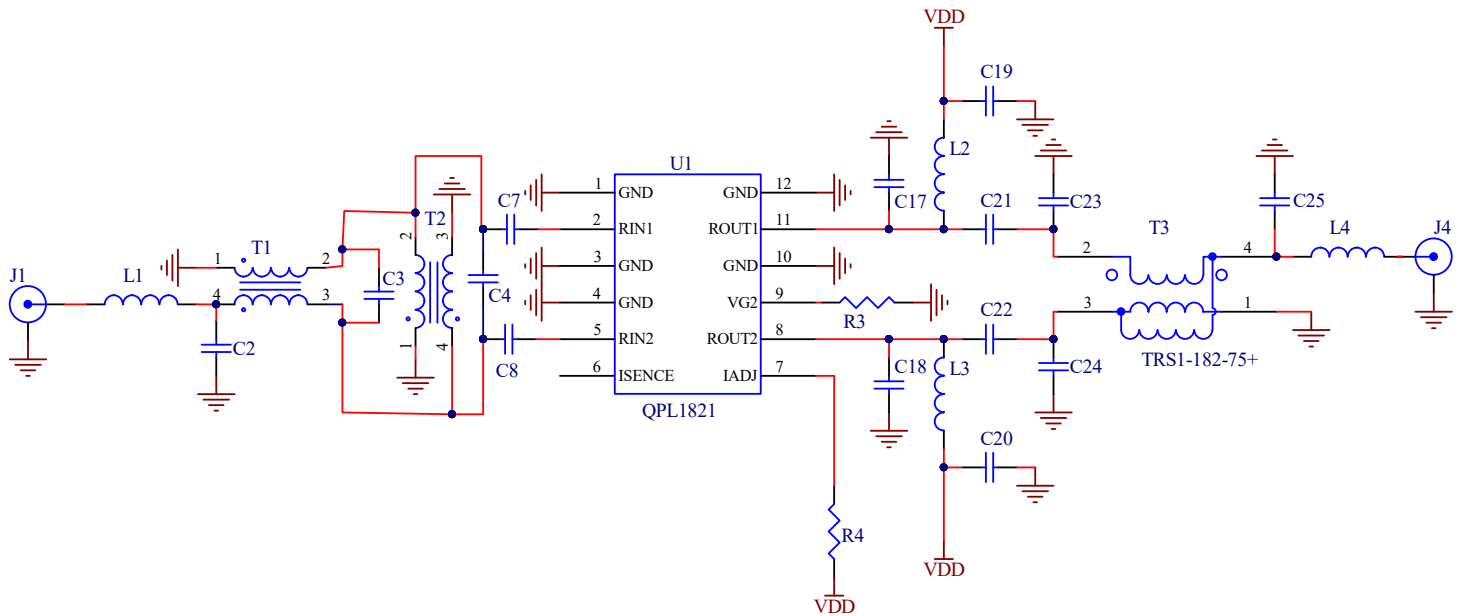
**QPL1821****75 Ω 19 dB CATV Amplifier (50 – 1800MHz)****Evaluation Board Bill of Materials: 5V**

Ref Des	Description	Manufacturer	Part Number
U1	1800MHz, Ultra-Linear Amp	Qorvo	QPL1821
PCB	EVB PCB, QPL182x-4000	Qorvo	SAP 300366
C2	CAP, 0.4pF, +/-0.1pF, 50V, HI-Q, 0402	Murata	GJM1555C1HR40BB01D
C3	CAP, 0.5pF, +/-0.1pF, 25V, C0G, 0201	Murata	GRM0335C1ER50BA01D
C4	CAP, 0.3pF, 0.1pF, 50V, COG, HI-Q, 0402	Murata	GJM1555C1HR30BB01D
C7, C8	CAP, 680pF, 10%, 100V, X7R, 0402	Taiyo Yuden	RM HMK105B7681KV-F
C14, C15, C16, C19, C20	CAP, 0.01uF, 10%, 50V, X7R, 0402	Murata	GCM155R71H103KA55D
C17, C18	CAP, 1.2pF, +/-0.25pF, 25V, HI-Q, 0201	Qorvo	CAP1105
C21, C22	Cap, 470pF/10% / 0402/X7R/50V/NISN	Murata	GCM155R71H471KA37D
C23, C24	CAP, 0.2pF, +/-0.1pF, 25V, HI-Q, 0201	Kamaya	RF03N0R2B250CT
C25	CAP, 0.2pF, +/-0.1pF, 50V, HI-Q, 0402	Kamaya	RF03N1R3B250CT
L1	IND, 1.5nH, +/-0.1nH, W/W, 0402	Murata	LQW15AN1N5B00D
L2, L3	IND, 470nH, 5%, 1.4A, W/W, 0603	Coilcraft	0603AF-471XJRW
L4	RES, 0 OHM, 5%, 1/10W, 0402	Kamaya	RMC1/16SJPTH
R3	RES, 3.3K, 5%, 1/16W, 0402	Kamaya	RMC1/16S-332JTH
R4	RES, 1.3K, 1%, 1/10W, 0402	Panasonic	ERJ-2RKF1301X
T1, T2	BALUN, 1GHz ~ 1.5GHz, 75 / 75 OHM, 0805	Murata	DXW21BN7511SL07
T3	1:1 BALUN XFMR, 1:1, 10 - 1800 MHz, 75 OHM	Mini-Circuits	TRS1-182-75+
J1, J4	CONN, F, EDGE MOUNT, 60 MIL	Trompeter Electronics	CBJE130-1
J2, J3	CONN, HDR, ST, 3-PIN, 0.100"	Samtec	TSW-103-07-G-S
R1, R2, C1, C5, C6, C9, C10, C11, C12, C13, C26	DNI		

Evaluation Board Bill of Materials: 8V

Ref Des	Description	Manufacturer	Part Number
U1	1800MHz, Ultra-Linear Amp	Qorvo	QPL1821
PCB	EVB PCB, QPL182x-4000	Qorvo	SAP300366
C2	CAP, 0.4pF, +/-0.1pF, 50V, HI-Q, 0402	Murata	GJM1555C1HR40BB01D
C3	CAP, 0.5pF, +/-0.1pF, 25V, C0G, 0201	Murata	GRM0335C1ER50BA01D
C4	CAP, 0.3pF, 0.1pF, 50V, COG, HI-Q, 0402	Murata	GJM1555C1HR30BB01D
C7, C8	CAP, 680pF, 10%, 100V, X7R, 0402	Taiyo Yuden	RM HMK105B7681KV-F
C14, C15, C16, C19, C20	CAP, 0.01uF, 10%, 50V, X7R, 0402	Murata	GCM155R71H103KA55D
C17, C18	CAP, 1.3pF, +/-0.1pF, 25V, HI-Q, 0201	Kamaya	RF03N1R3B250CT
C21, C22	Cap, 470pF/10% / 0402/X7R/50V/NISN	Murata	GCM155R71H471KA37D
C23, C24	CAP, 0.2pF, +/-0.1pF, 25V, HI-Q, 0201	Kamaya	RF03N0R2B250CT
C25	CAP, 0.2pF, +/-0.1pF, 50V, HI-Q, 0402	Kamaya	RF03N1R3B250CT
L1	IND, 1.5nH, +/-0.1nH, W/W, 0402	Murata	LQW15AN1N5B00D
L2, L3	IND, 470nH, 5%, 1.4A, W/W, 0603	Coilcraft	0603AF-471XJRW
L4	RES, 0 OHM, 5%, 1/10W, 0402	Kamaya	RMC1/16SJPTH
R3	RES, 3.3K, 5%, 1/16W, 0402	Kamaya	RMC1/16S-332JTH
R4	RES, 2K OHM, 1%, 1/10W, 0402	Panasonic	ERJ-2RKF2001X
T1, T2	1:1 BALUN	Murata	DXW21BN7511SL07
T3	1:1 BALUN	Mini-Circuits	TRS1-182-75+
J1, J4	CONN, F, EDGE MOUNT, 60 MIL	Trompeter Electronics	CBJE130-1
J2, J3	CONN, HDR, ST, 3-PIN, 0.100"	Samtec	TSW-103-07-G-S
R1, R2, C1, C5, C6, C9, C10, C11, C12, C13, C26	DNI		

Typical Application Schematic 50 MHz – 1800 MHz



Evaluation Board Schematic 50 MHz – 1800 MHz

