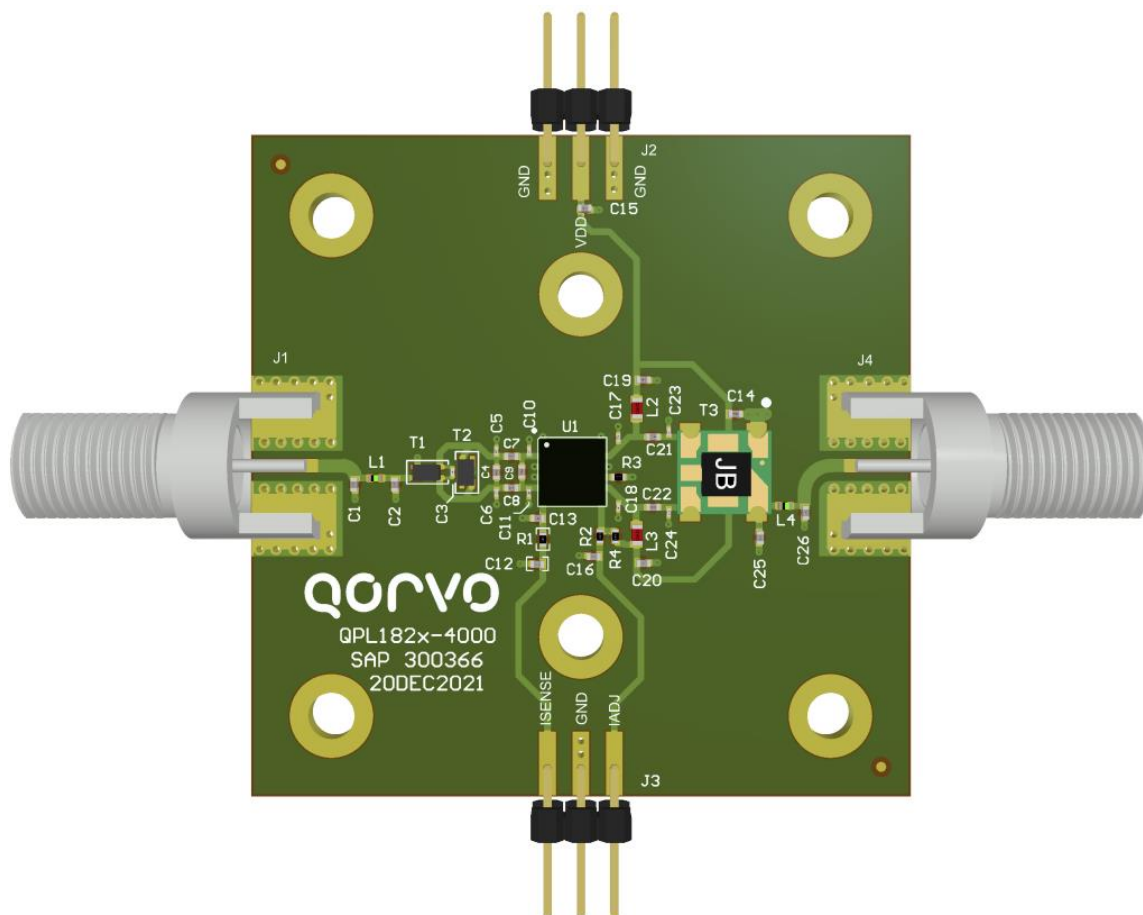


Evaluation Board Assembly Drawing



QPL1820 Evaluation Board

Layer Stack Legend

Material	Layer	Thickness	Dielectric Material	Type
	Top Overlay			Legend
Surface Material	Top Solder	0.0004	SM-001	Solder Mask
CF-004	Top Layer	0.0007		Signal
Core		0.0600	RO4003	Dielectric
CF-004	Bottom Layer	0.0007		Signal
Total thickness: 0.0618				

**QPL1820****75 Ω 22 dB CATV Amplifier (50 – 1800MHz)****Evaluation Board Bill of Materials: 5V**

Ref Des	Description	Manufacturer	Part Number
U1	1800MHz, Ultra-Linear Amp	Qorvo	QPL1820
PCB	EVb PCB, QPL182x-4000	Qorvo	SAP 300366
C1, C25	CAP, 0.2pF, +/-0.1pF, 50V, Hi-Q, 0402	Kamaya	RF03N1R3B250CT
C2	CAP, 0.4pF, +/-0.1pF, 50V, Hi-Q, 0402	Murata	GJM1555C1HR40BB01D
C3	CAP, 0.7pF, +/-0.1pF, 25V, C0G, 0201	Murata	GRM0335C1ER70BA01D
C7, C8	CAP, 680pF, 10%, 100V, X7R, 0402	Taiyo Yuden	RM HMK105B7681KV-F
C14, C15, 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, 0.3pF, +/-0.1pF, 25V, HI-Q, 0201	Murata	GJM0335C1ER30BB01D
L1	IND, 1.2nH, +/-0.3nH, M/L, 0402	Murata	LQG15HN1N2S02D
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, 0805	Murata	DXW21BN7511SL
T3	1:1 BALUN XFMR, 10 – 1800 MHz	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, C4, C5, C6, C9, C10, C11, C12, C13, C16, C26	DNI		

Evaluation Board Bill of Materials: 8V

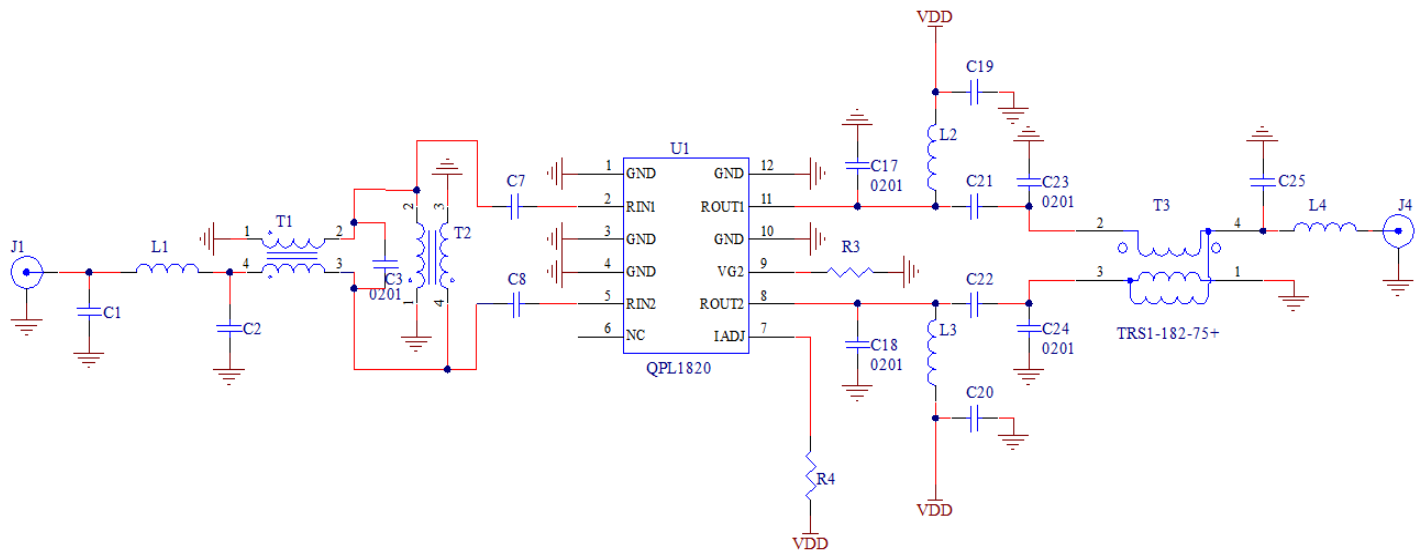
Ref Des	Description	Manufacturer	Part Number
U1	1800MHz, Ultra-Linear Amp	Qorvo	QPL1820
PCB	EVb PCB, QPL182x-4000	Qorvo	SAP 300366
C1, C4	CAP, 0.2pF, +/-0.1pF, 50V, Hi-Q, 0402	Kamaya	RF03N1R3B250CT
C2	CAP, 0.4pF, +/-0.1pF, 50V, Hi-Q, 0402	Murata	GJM1555C1HR40BB01D
C3	CAP, 0.6pF, +/-0.1pF, 25V, HI-Q, 0201	Qorvo	CAP1098
C7, C8	CAP, 680pF, 10%, 100V, X7R, 0402	Taiyo Yuden	RM HMK105B7681KV-F
C14, C15, 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
L1	IND, 1.2nH, +/-0.3nH, M/L, 0402	Murata	LQG15HN1N2S02D
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	BALUN, 1GHz ~ 1.5GHz, 75 / 75 OHM, 0805	Murata	DXW21BN7511SL
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, C5, C6, C9, C10, C11, C12, C13, C16, C23, C24, C25, C26	DNI		



QPL1820

75 Ω 22 dB CATV Amplifier (50 – 1800MHz)

Typical Application Schematic 50 MHz – 1800 MHz



Evaluation Board Schematic 50 MHz – 1800 MHz

