Texas Instruments

Bill of Materials

TI DESIGNS

TIDM-HARTTRANSMITTER

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
1	2	C1, C2	0.1uF	CAP, CERM, 0.1uF, 6.3V, +/-10%,	TDK	C1005X5R0J104K		0402	
2	2	C3, C4	0.01uF	CAP, CERM, 0.01uF, 100V, +/-10%, X7R, 0603	TDK	C1608X7R2A103K		0603	
3	1	C5	0.01uF	CAP, CERM, 0.01uF, 6.3V, +/-10%,	MuRata	GRM155R70J103KA01D		0402	
4	1	C6	10uF	CAP, CERM, 10uF, 50V, +/-10%, X7R, 1210	MuRata	GRM32ER71H106KA12L		1210	
5	1	C7	0.39uF	CAP, CERM, 0.39uF, 6.3V, +/-10%,	MuRata	GRM155C80J394KE19D		0402	
6	1	C8	0.22uF	CAP, CERM, 0.22uF, 6.3V, +/-10%, X5R, 0402	MuRata	GRM155R60J224KE01D		0402	
7	1	C9	6800pF	CAP, CERM, 6800pF, 25V, +/-10%,	MuRata	GRM155R71E682KA01D		0402	
8	1	C10	1000pF	CAP, CERM, 1000pF, 10V, +/-10%, X5R, 0402	MuRata	GRM155R61A102KA01D		0402	
9	1	C11	10uF	CAP, CERM, 10uF, 6.3V, +/-10%,	MuRata	GRM21BR70J106KE76L		0805_HV	
10	1	C12	0.1uF	CAP, CERM, 0.1uF, 25V, +/-10%, X7R, 0603	MuRata	GRM188R71E104KA01D		0603	
11	1	C13	2200pF	CAP, CERM, 2200pF, 25V, +/-10%,	MuRata	GRM188R71E222KA01D		0603	
12	1	C14	300pF	CAP, CERM, 300 pF, 50 V, +/- 5%, C0G/NP0, 0402	MuRata	GRM1555C1H301JA01D		0402	
13	2	C16, C17	5100pF	CAP, CERM, 5100 pF, 50 V, +/- 5%,	MuRata	GRM2195C1H512JA01D		0805_HV	
14	1	C18	300pF	CAP, CERM, 300pF, 50V, +/-5%, C0G/NP0, 0402	MuRata	GRM1555C1H301JA01D		0402	
15	1	C19	0.027uF	CAP, CERM, 0.027uF, 25V, +/-10%,	MuRata	GRM188R71E273KA01D		0603	
16	1	D1	15V	Diode, TVS, Bi, 15 V, 400 W, SOD323, 2-Leads, Body 1.9x1.45mm, No Polarity Mark	Bourns	CDSOD323-T15SC		SOD-323-Bi	
17	2	D2, D3	100V	DIODE SCHOTTKY 100V 0.2A	ST Microelectronics	BAT41KFILM		SOD-523	
18	1	J1		Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH	On-Shore Technology	ED555/2DS		TERM_BLK_ED555-2DS	
19	1	J2		40Pin Booster Pack Connection	Samtec	SSW-110-23-F-D	-	40Pin BP	
20	1	L1	1000 ohm	0.25A Ferrite Bead, 1000 ohm @ 100MHz, SMD	MuRata	BLM15HG102SN1D		0402	
21	2	L2, L3	600 ohm	1.5A Ferrite Bead, 600 ohm @	Steward	MI1206K601R-10		1206	
22	1	Q1	0.08V	Transistor, NPN, 45V, 1A, SOT-89	Diodes Inc.	FCX690BTA		SOT-89-3	
23	6	R1, R2, R3, R4, R5, R6	0	RES, 0 ohm, 5%, 0.063W, 0402	Yageo America	RC0402JR-070RL		0402	
24	1	R7	270	RES, 270 ohm, 5%, 0.66W, 1206	Panasonic	ERJ-P08J271V		1206	
25	1	R8	22.1k	RES, 22.1k ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW040222K1FKED		0402	
26	1	R9	20.0	RES, 20.0 ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW040220R0FKED		0402	

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27	2	R10, R11	100k	RES, 100k ohm, 5%, 0.063W, 0402	Vishay-Dale	CRCW0402100KJNED		0402	
28	1	R12	12.4k	RES, 12.4k ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW040212K4FKED		0402	
29	2	R13, R19	5.1	RES, 5.1, 5%, 0.75 W, 2010	Vishay-Dale	CRCW20105R10JNEF		2010	
30	1	R14	15.4k	RES, 15.4k ohm, 0.5%, 0.1W, 0603	Yageo America	RT0603DRE0715K4L		0603	
31	1	R15	100k	RES, 100k ohm, 5%, 0.75W, 1206	Vishay-Dale	P100KALTR-ND		1206	
32	2	R16, R17	1.54k	RES, 1.54 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06031K54FKEA		0603	
33	1	R18	64.9k	RES, 64.9 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060364K9FKEA		0603	
34	1	U1		16-bit SPI Programmable DAC for 4-20mA Loops, RGH0016A	Texas Instruments	DAC161S997RGH		RGH0016A	
35	1	U2		60-V, 5-µA IQ, 100-mA, Low-	Texas Instruments	TPS7A1601DGN		DGN0008C_N	
36	1	U3	LMV342MM	2.7V, 125°C, R-R Out Dual Op Amp	Texas Instruments	OPA2342		MUA08A_L	

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