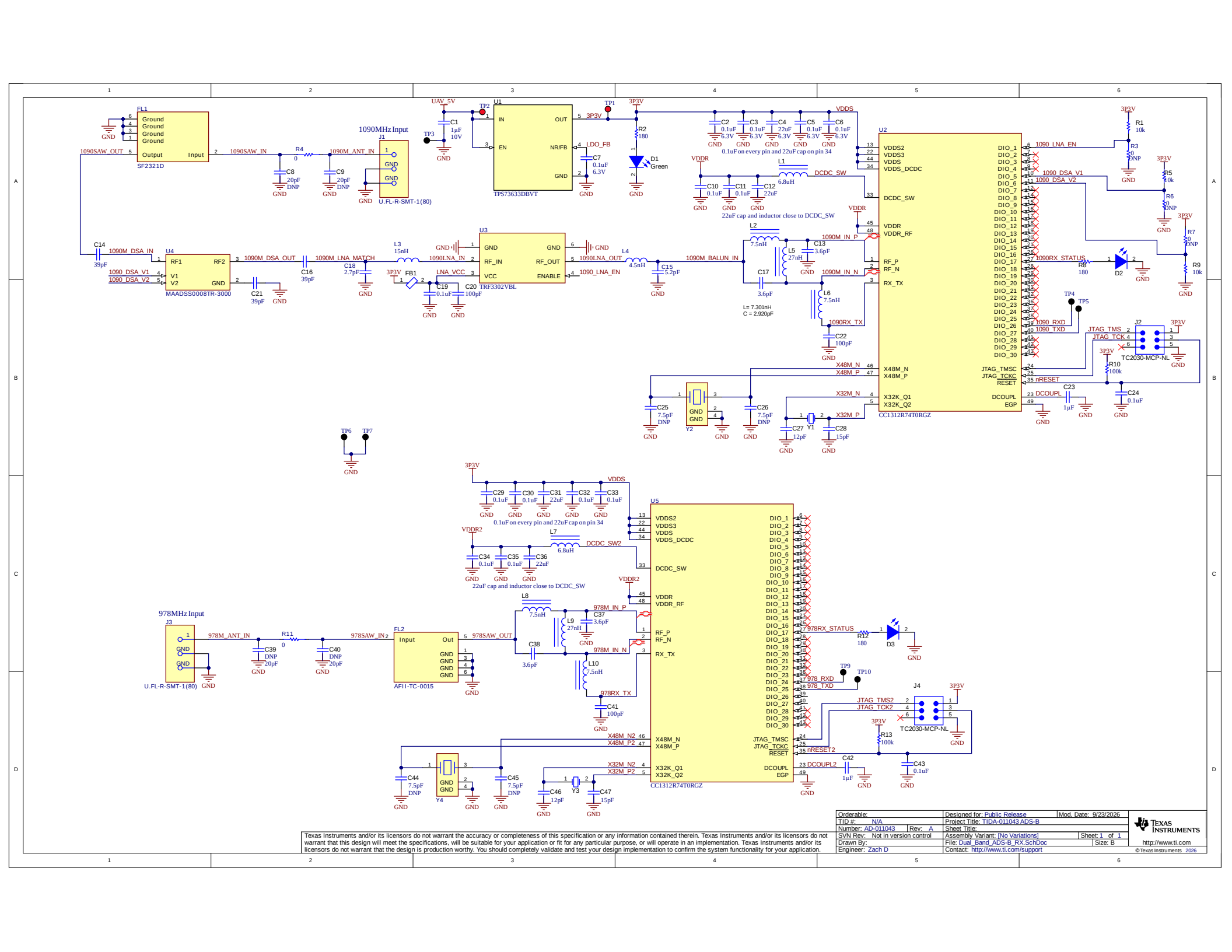


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Orderable:	Designed for: Public Release	Mod. Date: 9/23/2026
TID #: N/A	Project Title: TIDA-011043 ADS-B	
Number: AD-011043 Rev: A	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: [No Variations]	Sheet: 1 of 1
Drawn By:	File: Dual_Band_ADS-B_RX.SchDoc	Size: B
Engineer: Zach D	Contact: http://www.ti.com/support	

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WEEE logo

PCB Number: AD-011043
PCB Rev: A

ZZ1
Assembly Note
These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ2
Assembly Note
These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ3
Assembly Note
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

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Orderable:		Designed for: Public Release	Mod. Date: 9/18/2026
TID #: N/A		Project Title: TIDA-011043 ADS-B	
Number: AD-011043	Rev: A	Sheet Title:	
SVN Rev: Not in version control		Assembly Variant: [No Variations]	Sheet: 3 of 3
Drawn By:		File: Hardware.SchDoc	Size: B
Engineer: Zach D		Contact: http://www.ti.com/support	

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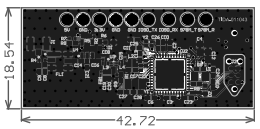
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ZZ1 ■ These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ2 ■ These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ3 ■ These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

Layer	Name	Material	Thickness	Constant	Board Layer Stack
	Top Overlay				
	Top Solder	Solder Resist	1.20mil	3.8	
1	Top Layer (Sig)	CF-004	1.38mil		
	Dielectric 1	NP-155F	4.58mil	4.16	
2	Inner Layer 1 (GND)	CF-004	0.69mil		
	Dielectric 2	NP-155F	11.81mil	4.6	
3	Inner Layer 2 (Sig)	CF-004	0.69mil		
	Dielectric 3	NP-155F	3.01mil	3.91	
	Dielectric 4	NP-155F	3.01mil	3.91	
4	Inner Layer 3 (GND)	CF-004	0.69mil		
	Dielectric 5	NP-155F	11.81mil	4.6	
5	Inner Layer 4 (PWR)	CF-004	0.69mil		
	Dielectric 6	NP-155F	3.01mil	3.91	
	Dielectric 7	NP-155F	3.01mil	3.91	
6	Inner Layer 5 (Sig)	CF-004	0.69mil		
	Dielectric 8	NP-155F	11.81mil	4.6	
7	Inner Layer 6 (GND)	CF-004	0.69mil		
	Dielectric 9	NP-155F	4.58mil	4.16	
8	Bottom Layer (Sig)	CF-004	1.38mil		
	Bottom Solder	Solder Resist	1.20mil	3.8	
	Bottom Overlay				



1000.00mil

COMPONENTS MARKED 'DNP' SHOULD NOT BE POPULATED

ASSEMBLY VARIANT: [No Variations]

DESIGN INFORMATION	
MIN. TRACK WIDTH:	8 MIL
MIN. CLEARANCE:	7.874 MIL
MIN. VIA PAD SIZE:	24 MIL

MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL
PER IPC-D-275 CLASS 2 LEVEL C
REGISTRATION TOLERANCES: METAL +/- 5 MIL, HOLES +/- 3 MIL
HOLE SIZE TOLERANCE (UNLESS OTHERWISE SPECIFIED): +/- 3 MIL

MATERIAL:
[ ] FR-4 [X] FR-4 High Tg [ ] OTHER _____
THICKNESS: [X] 62 MIL (1.6mm) +/-10% [ ] OTHER _____
TOLERANCE: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/- _____
BOW & TWIST: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/- _____

DRILLING:
REFERENCE: [X] AS SHOWN [X] NC_DRILL FILES
PTH COPPER THICKNESS: [X] 20-30 um [ ] OTHER _____

BOARD FINISH:
SILKSCREEN: [X] TOP [X] BOTTOM
SILKSCREEN COLOR: [X] WHITE [ ] OTHER _____
SOLDER RESIST COLOR: [X] GREEN [ ] OTHER _____
[X] MATTE [ ] SEMI-GLOSS

SURFACE FINISH: [X] IMMERSION GOLD (ENIG) [ ] ENEPIG
[ ] IMM. TIN/SILVER OR EQUIV [ ] OTHER _____

ARRAY/PANEL: [ ] CUT AND TRIM PER M1 BOARD OUTLINE
[ ] N.C. ROUTE [X] V. SCORE

CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBS TO MEET OR EXCEED THE REQUIREMENTS OF:
[X] ANSI IPC-A-600F CLASS -> [ ] 1 [X] 2 [ ] 3
[X] RoHS [ ] OTHER PER ORDER

ALL BOARDS MUST MEET OR EXCEED UL94-V0 REQUIREMENTS.
PCB MUST BEAR THE UL94V-0 UL REGISTERED MATERIAL ID NUMBER

ADDITIONAL REQUIREMENTS:
MICROSECTION: [ ] YES
BARE BOARD ELEC. TEST: [ ] NONE [X] REQUIRED [ ] PER ORDER
[ ] XX MIL VIAS REQUIRE NON-CONDUCTIVE FILL AND PLANARIZE
[ ] XX MIL VIAS REQUIRE CONDUCTIVE FILL AND PLANARIZE
[ ] OUTER XX MIL TRACES REQUIRE 50 OHM SINGLE-ENDED IMPEDANCE
[ ] LAYER 2 & 3 (INNER LAYERS) XX MIL WIDE, XX MIL SPACE TRACES REQUIRE 100 OHM DIFFERENTIAL IMPEDANCE

TEXAS INSTRUMENTS

PROJECT TITLE: TIDA-011043 ADS-B

DESIGNED FOR: Public Release

FILE NAME: TIDA-011043A.PcbDoc

[illegible]	A	BOARD #: 011043	REV: A	[illegible]	
LAYER NAME =		TID #: N/A	TID #		
[illegible]	Composite Print	GENERATED :: 10/22/2024	11:51:19 AM	Composite	TEXAS INSTRUMENTS

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ENGINEER:	LAYOUT BY:
Zach D	Zach D
SCALE: 1.00	ALTIUM DESIGNER VERSION: 23.1.1.15

Line #	Name	Description	Designator	Revision ID	Revision State	Revision Status	Quantity	Manufacturer 1	Manufacturer Part Number 1	Manufacturer Lifecycle 1	Supplier 1	Supplier Part Number 1	Supplier Unit Price 1	Supplier Subtotal 1
	5000	Test Point, Miniature, Red, TH	TP1, TP2		Unknown server		2	Keystone	5000	Volume Production	Mouser	534-5000	0.24	0.48
	GRM1555C1H7R5CA01D	CAP, CERM, 7.5 pF, 50 V, +/- 5%, C0G/NP0, 0402	C25, C26, C44, C45		Unknown server		4	Murata	GRM1555C1H7R5CA01D	Not Recommended for New Design	Mouser	81-GRM1555C1H7R5CA1D	0.024	0.24
n/a	Printed Circuit Board	Printed Circuit Board	!PCB?		Unknown server		1							
o	0402DC-4N5XJRW	4.5 nH Unshielded Wirewound Inductor 1.85 A 48mOhm Max 0402 (1005 Metric)	L4		Unknown server		1	Coilcraft	0402DC-4N5XJRW	Volume Production	Mouser	994-0402DC-4N5XJRW	0.77	0.77
o	0402DC-15NXJRW	15 nH Unshielded Wirewound Inductor 1.2 A 115mOhm Max 0402 (1005 Metric)	L3		Unknown server		1	Coilcraft	0402DC-15NXJRW	Volume Production	Mouser	994-0402DC-15NXJRW	0.77	0.77
o	ABM12W-48.0000MHZ-7-D1X-T3	48 MHz ±10ppm Crystal 7pF 50 Ohms 4-SMD, No Lead	Y2, Y4		Unknown server		2	Abracon	ABM12W-48.0000MHZ-7-D1X-T3	Volume Production	Mouser	815-12W48-7D1XT	1.1	2.2
o	ARI-TC-0015	978MHz Frequency 5G, Artificial Intelligence, Augmented Reality, Autonomous Vehicles, Internet of Things (IoT), Smart Home Devices RF SAW Filter (Surface Acoustic Wave) 3.5dB 5MHz Bandwidth 6-SMD, No Lead	FL2		Unknown server		1	Abracon	ARI-TC-0015	Volume Production	Mouser	815-ARI-TC-0015	5.16	5.16
o	CC1312R7T0RGZ	SimpleLink High-Performance Sub-1 GHz Wireless MCU	U2, U5		Unknown server		2	Texas Instruments	CC1312R7T0RGZR	Volume Production	DigiKey	296-CC1312R7T0RGZRCT-ND	7.29	14.58
o	GJM1555C1H2R7CB01D	Multi-Layer Ceramic Capacitor 2.7pF C0G ±0.25pF 0402 Paper T/R	C18		Unknown server		1	Murata	GJM1555C1H2R7CB01D	Volume Production	DigiKey	490-3093-1-ND	0.1	0.1
o	GJM1555C1H5R2WB01D	Multi-Layer Ceramic Capacitor 5.2pF C0G ±0.05pF 0402 Paper T/R	C15		Unknown server		1	Murata	GJM1555C1H5R2WB01D	Volume Production	DigiKey	490-11224-1-ND	0.17	0.17
o	MAADSS0008TR-3000	RF Attenuators 15dB 0 Hz ~ 2 GHz 50 Ohms SC-74A, SOT-753	U4		Unknown server		1	MACOM	MAADSS0008TR-3000	Volume Production	DigiKey	1465-1252-6-ND	2.09	2.09
o	SF2321D	1.09GHz Frequency General Purpose RF SAW Filter (Surface Acoustic Wave) 2.4dB 30MHz Bandwidth 6-SMD, No Lead	FL1		Unknown server		1	RFMi	SF2321D		Mouser	198-SF2321D	2.17	2.17
o	TPS73633DBVT	Single Output Low Noise LDO, 400 mA, Fixed 3.3 V Output, 1.7 to 5.5 V Input, with Reverse Current Protection, 5-pin SOT-23 (DBV), -40 to 85 degC, Green (RoHS & no Sb/Br)	U1		Unknown server		1	Texas Instruments	TPS73633DBVT	Volume Production	Arrow Electronics	TPS73633DBVT	2.71	2.71
o	TRF3302VBL	TRF3302VBL	U3		Unknown server		1	Texas Instruments	TRF3302VBLR	Volume Production	DigiKey	296-TRF3302VBLRCT-ND	0.71	0.71
o	U.FL-R-SMT-1(80)	U.FL (UMCC) Connector Receptacle, Male Pin 50Ohm Surface Mount Solder	J1, J3		Unknown server		2	HIROSE ELECTRIC	U.FL-R-SMT-1(80)	Volume Production	DigiKey	26-U.FL-R-SMT-1(80)DKR-ND	1.69	3.38
v	5001	Test Point, Miniature, Black, TH	TP3, TP4, TP5, TP6, TP7, TP9, TP10		Unknown server		7	Keystone	5001	Volume Production	Mouser	534-5001	0.26	1.82
v	BLM03AX121SN1D	Ferrite Bead, 0201, 120Ω @100MHz, 25%, 0.23Ω, 450mA	FB1		Unknown server		1	Murata	BLM03AX121SN1D	Volume Production	DigiKey	490-5622-1-ND	0.1	0.1
v	C0402C200J5GACTU	CAP, CERM, 20 pF, 50 V, +/- 5%, C0G/NP0, 0402	C8, C9, C39, C40		Unknown server		4	Yageo Group	C0402C200J5GACTU	Volume Production	Mouser	80-C0402C200J5G	0.54	2.16
v	CC0402MRX5R6BB105	CAP, CERM, 1 µF, 10 V, +/- 20%, X5R, 0402	C1, C23, C42		Unknown server		3	Yageo Group	CC0402MRX5R6BB105	Volume Production	Mouser	603-CC402MRX5R6BB105	0.15	0.45
v	CMP-0006607-2	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X5R, 0402	C32, C33		Unknown server		2	Murata	GRM155R61E104KA87D	Not Recommended for New Design	DigiKey	490-5920-6-ND	0.1	0.2
v	CMP-0006623-2, GRM155R70J104KA01D	CAP, CERM, 0.1 uF, 6.3 V, +/- 10%, X7R, 0402	C2, C3, C5, C6, C7, C10, C11, C19, C24, C29, C30, C34, C35, C43		Unknown server		14	Murata	GRM155R70J104KA01D	Not Recommended for New Design	Newark	GRM155R70J104KA01D	0.018	0.252
v	CMP-0007307-5	CAP, CERM, 22 uF, 6.3 V, +/- 20%, X5R, 0603	C4, C12, C31, C36		Unknown server		4	Murata	GRM188R60J226MEA0J	Volume Production	Arrow Electronics	GRM188R60J226MEA0J	0.1333	0.5332
v	CMP-0026659-2	RES, 100 k, 1%, 0.1 W, 0402	R10, R13		Unknown server		2	Panasonic	ERJ-2RKF1003X	Volume Production	Mouser	667-ERJ-2RKF1003X	0.019	0.19
v	CMP-0062727-1	Inductor, Multilayer, Ferrite, 6.8 uH, 0.11 A, 0.25 ohm, SMD	L1, L7		Unknown server		2	TDK	MLZ2012N6R8LT000	Volume Production	DigiKey	445-6761-1-ND	0.1	0.2
v	CRCW040210K0JNED	RES, 10 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	R1, R5, R9		Unknown server		3	Vishay / Dale	CRCW040210K0JNED		Digi-Key	541-10KJCT-ND		
v	CRCW0402180RJNED	RES, 180, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	R2, R8, R12		Unknown server		3	Vishay	CRCW0402180RJNED	Volume Production	Newark	CRCW0402180RJNED	0.021	0.21
v	ERJ-2GE0R00X	0 Ohms Jumper Chip Resistor 0402 (1005 Metric) Automotive AEC-Q200 Thick Film	R3, R4, R6, R7, R11		Unknown server		5	Panasonic	ERJ-2GE0R00X	Volume Production	Mouser	667-ERJ-2GE0R00X	0.011	0.11
v	FC-135 32.7680KA-AG0	Crystal, 32.768 KHz, 20 ppm, 7 pF, SMD	Y1, Y3		Unknown server		2	Seiko	FC-135 32.7680KA-AG0	Volume Production	Mouser	732-FC135-32.76KAAG0	0.49	0.98
v	GRM1555C1E390JA01D	CAP, CERM, 39 pF, 25 V, +/- 5%, C0G/NP0, 0402	C14, C16, C21		Unknown server		3	Murata	GRM1555C1E390JA01D	Not Recommended for New Design	Mouser	81-GRM1555C1E390JA1D	0.024	0.24
v	GRM1555C1H3R6CA01D	CAP, CERM, 3.6 pF, 50 V, +/- 5%, C0G/NP0, 0402	C13, C17, C37, C38		Unknown server		4	Murata	GRM1555C1H3R6CA01D	Not Recommended for New Design	DigiKey	490-5939-1-ND	0.037	0.37
v	GRM1555C1H101JA01D, CMP-0006410-2	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0402	C20, C22, C41		Unknown server		3	Murata	GRM1555C1H101JA01D	Not Recommended for New Design	DigiKey	490-5922-1-ND	0.023	0.23
v	GRM1555C1H120JA01D	CAP, CERM, 12 pF, 50 V, +/- 5%, C0G/NP0, 0402	C27, C46		Unknown server		2	Murata	GRM1555C1H120JA01D	Not Recommended for New Design	Newark	GRM1555C1H120JA01D	0.019	0.19
v	GRM1555C1H150JA01D	CAP, CERM, 15 pF, 50 V, +/- 5%, C0G/NP0, 0402	C28, C47		Unknown server		2	Murata	GRM1555C1H150JA01D	Not Recommended for New Design	DigiKey	490-5888-6-ND	0.1	0.2
v	LP L296-J2L2-25	LED, Green, SMD	D1, D2, D3		Unknown server		3	Osram	LP L296-J2L2-25	Volume Production	Newark	LP L296-J2L2-25	0.464	2.32
v	LQG15HS7N5J02D	Inductor, Multilayer, Air Core, 7.5 nH, 0.3 A, 0.24 ohm, SMD	L2, L6, L8, L10		Unknown server		4				Digi-Key	490-3456-1-ND		
v	LQG15HS27NJ02D	Inductor, Multilayer, Air Core, 27 nH, 0.3 A, 0.46 ohm, SMD	L5, L9		Unknown server		2	Murata	LQG15HS27NJ02D	Volume Production	Mouser	81-LQG15HS27NJ02D	0.1	0.2

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