Qualcomm Technologies, Inc.

QCC74x

Reference Schematic

80-WL740-41 Rev. AE

November 27, 2025

Contents

1 Reference schematic

1.1 Introduction

This document includes the parts list and schematic for QCC743, QCC744 and QCC748.

1.2 Schematic

This schematic is subject to change without notice, and is not optimized for production products due to its conservative design approach and internal test requirements.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
AE	-----	-----	-----

QCC74x Reference Schematic

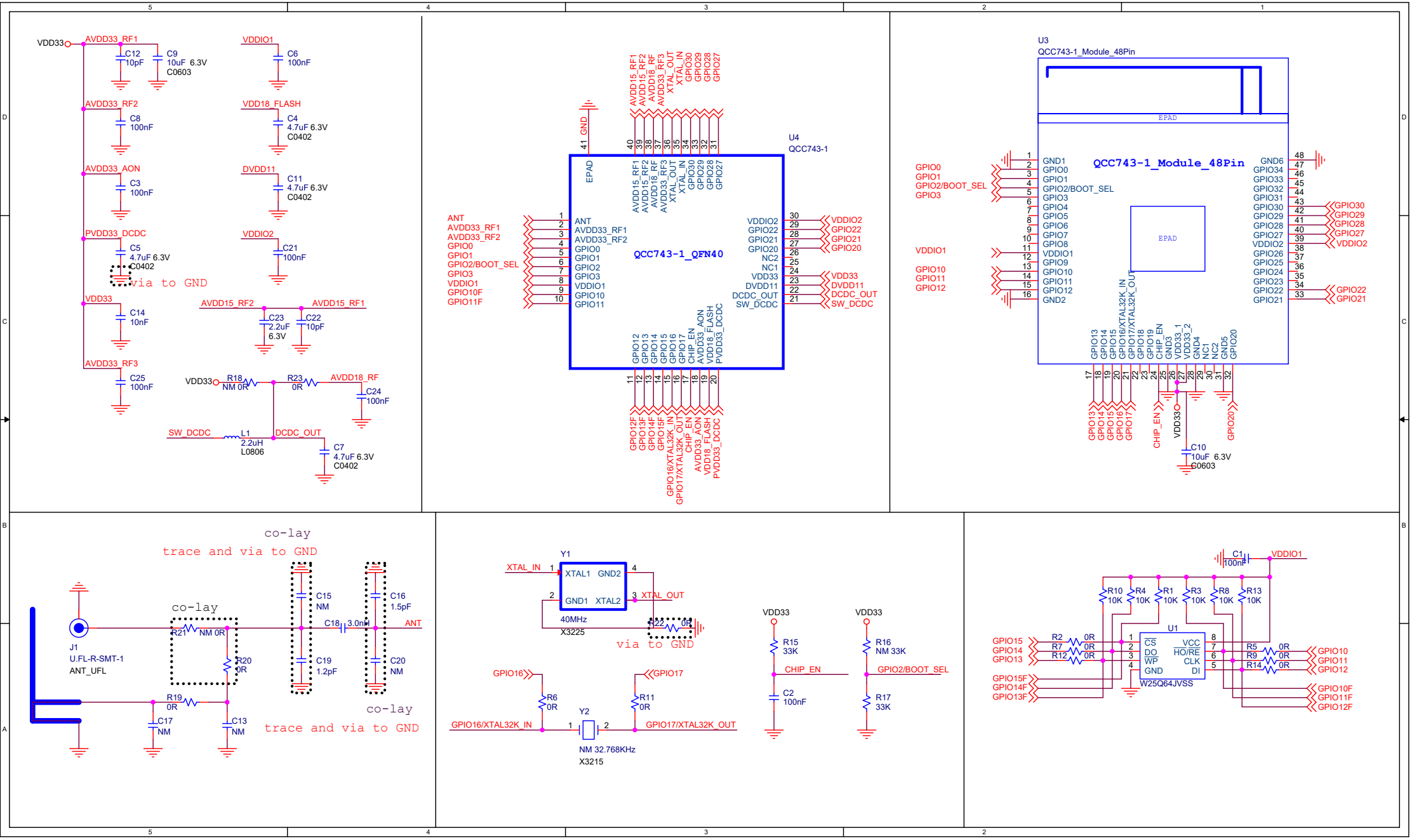
CONTRACT NO.	
DRAWN BY	DATE
ENGINEER	
PROJECT ENGINEER	
QUALITY ASSURANCE	
CONFIGURATION	
DESIGN ACTIVITY APPROVAL	
DESIGN APPROVAL	

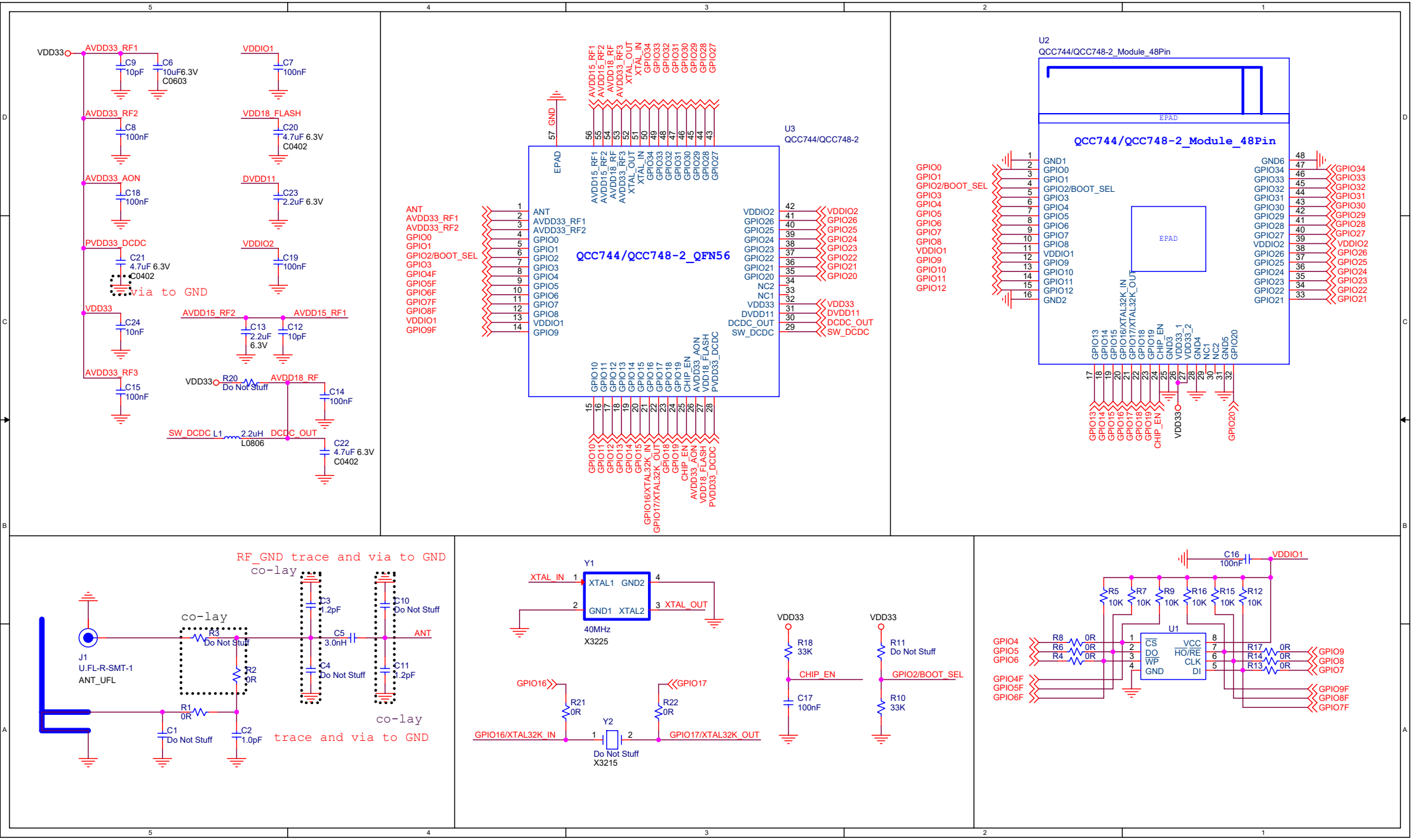
QUALCOMM TECHNOLOGIES, INC.
5775 MOREHOUSE DRIVE
SAN DIEGO, CA 92121 U.S.A

TITLE

QCC74x Reference Schematic

SIZE		DRAWING NO	REV
D		80-WL740-41	AE
SCALE	RELEASE DATE	SHEET	





2 Parts list

Table 2-1 Parts list

Part Reference	MPN	Manufacturer	Description	Quantity	Value	Voltage	Tolerance	PCB Footprint
QCC743								
C1 C2 C3 C6 C8 C21 C24 C25	GRM155R71H104KE14D	Murata	100nF 0402 50V ±10% X7R	8	100nF	50V	±10%	C0402
C4 C5 C7 C11	GRM155R60J475ME87D	Murata	4.7uF 0402 6.3V ±20% X5R	4	4.7uF	6.3V	±20%	C0402
C9 C10	GRM188R60J106ME47D	Murata	10uF 0603 6.3V ±20% X5R	2	10uF	6.3V	±20%	C0603
C12 C22	GRM1555C1H100JA01D	Murata	10pF 0402 50V ±5% C0G	2	10pF	50V	±5%	C0402
C14	GRM155R71C103JA01D	Murata	10nF 0402 16V ±5% X7R	1	10nF	16V	±5%	C0402
C16	GRM1555C1H1R5BA01D	Murata	1.5pF 0402 50V ±0.1pF C0G	1	1.5pF	50V	±0.1pF	C0402
C18	LQP15MN3N0B02D	Murata	3.0nH 0402 190mA ±0.1nH	1	3.0nH		±0.1nH	C0402
C19	GRM1555C1H1R2BA01D	Murata	1.2pF 0402 50V ±0.1pF C0G	1	1.2pF	50V	±0.1pF	C0402
C23	GRM155R60J225ME15D	Murata	2.2uF 0402 6.3V ±20% X5R	1	2.2uF	6.3V	±20%	C0402
J1	U.FL-R-SMT-1(80)	HRS	U.FL-R-SMT-1(80)	1	U.FL-R-SMT-1			ANT_UFL
L1	DFE201612E-2R2M=P2	muRata	2.2uH 0806 1.8A ±20%	1	2.2uH		±20%	L0806
R1	RC0402FR-0710KL	Yageo	10K 0402 ±1%	1	10K	50V	±1%	R0402
R2 R5 R6 R7 R9 R11 R12 R14 R19 R20 R22 R23	RC0402FR-070RL	Yageo	0R 0402 ±1%	12	0R	50V	±1%	R0402
R15 R17	RC0402FR-0733KL	Yageo	33K 0402 ±1%	2	33K	50V	±1%	R0402
U4	QCC743	Qualcomm	QCC743	1	QCC743			QFN40_5X5MM
Y1	E3SB40E00001NE	HOSONIC	40MHz ±10ppm 3225 12pF	1	40MHz			X3225
			Shield cover	1	Shield cover			
QCC744								
C2	GRM1555C1H1R0BA01D	Murata	1.0pF 0402 50V ±0.1pF C0G	1	1.0pF	50V	±0.1pF	C0402
C3 C11	GRM1555C1H1R2BA01D	Murata	1.2pF 0402 50V ±0.1pF C0G	2	1.2pF	50V	±0.1pF	C0402
C5	LQP15MN3N0B02D	Murata	3.0nH 0402 190mA ±0.1nH	1	3.0nH		±0.1nH	C0402
C6	GRM188R60J106ME47D	Murata	10uF 0603 6.3V ±20% X5R	1	10uF	6.3V	±20%	C0603
C7 C8 C14 C15 C16 C17 C18 C19	GRM155R71H104KE14D	Murata	100nF 0402 50V ±10% X7R	8	100nF	50V	±10%	C0402
C9 C12	GRM1555C1H100JA01D	Murata	10pF 0402 50V ±5% C0G	2	10pF	50V	±5%	C0402
C13 C23	GRM155R60J225ME15D	Murata	2.2uF 0402 6.3V ±20% X5R	2	2.2uF	6.3V	±20%	C0402
C20 C21 C22	GRM155R60J475ME87D	Murata	4.7uF 0402 6.3V ±20% X5R	3	4.7uF	6.3V	±20%	C0402
C24	GRM155R71C103JA01D	Murata	10nF 0402 16V ±5% X7R	1	10nF	16V	±5%	C0402
J1	U.FL-R-SMT-1(80)	HRS	U.FL-R-SMT-1(80)	1	U.FL-R-SMT-1			ANT_UFL
L1	DFE201612E-2R2M=P2	muRata	2.2uH 0806 1.8A ±20%	1	2.2uH		±20%	L0806
R1 R2 R4 R6 R8 R13 R14 R17 R21 R22	RC0402FR-070RL	Yageo	0R 0402 ±1%	10	0R	50V	±1%	R0402
R9	RC0402FR-0710KL	Yageo	10K 0402 ±1%	1	10K	50V	±1%	R0402
R10 R18	RC0402FR-0733KL	Yageo	33K 0402 ±1%	2	33K	50V	±1%	R0402
U3	QCC744	Qualcomm	QCC744	1	QCC744			QFN56_7X7MM
Y1	E3SB40E00001NE	HOSONIC	40MHz ±10ppm 3225 12pF	1	40MHz			X3225
			Shield cover	1	Shield cover			
QCC748								
C2	GRM1555C1H1R0BA01D	Murata	1.0pF 0402 50V ±0.1pF C0G	1	1.0pF	50V	±0.1pF	C0402
C3 C11	GRM1555C1H1R2BA01D	Murata	1.2pF 0402 50V ±0.1pF C0G	2	1.2pF	50V	±0.1pF	C0402
C5	LQP15MN3N0B02D	Murata	3.0nH 0402 190mA ±0.1nH	1	3.0nH		±0.1nH	C0402
C6	GRM188R60J106ME47D	Murata	10uF 0603 6.3V ±20% X5R	1	10uF	6.3V	±20%	C0603
C7 C8 C14 C15 C16 C17 C18 C19	GRM155R71H104KE14D	Murata	100nF 0402 50V ±10% X7R	8	100nF	50V	±10%	C0402
C9 C12	GRM1555C1H100JA01D	Murata	10pF 0402 50V ±5% C0G	2	10pF	50V	±5%	C0402
C13 C23	GRM155R60J225ME15D	Murata	2.2uF 0402 6.3V ±20% X5R	2	2.2uF	6.3V	±20%	C0402
C20 C21 C22	GRM155R60J475ME87D	Murata	4.7uF 0402 6.3V ±20% X5R	3	4.7uF	6.3V	±20%	C0402
C24	GRM155R71C103JA01D	Murata	10nF 0402 16V ±5% X7R	1	10nF	16V	±5%	C0402
J1	U.FL-R-SMT-1(80)	HRS	U.FL-R-SMT-1(80)	1	U.FL-R-SMT-1			ANT_UFL
L1	DFE201612E-2R2M=P2	muRata	2.2uH 0806 1.8A ±20%	1	2.2uH		±20%	L0806
R1 R2 R4 R6 R8 R13 R14 R17 R21 R22	RC0402FR-070RL	Yageo	0R 0402 ±1%	10	0R	50V	±1%	R0402
R9	RC0402FR-0710KL	Yageo	10K 0402 ±1%	1	10K	50V	±1%	R0402
R10 R18	RC0402FR-0733KL	Yageo	33K 0402 ±1%	2	33K	50V	±1%	R0402
U3	QCC748	Qualcomm	QCC748	1	QCC748			QFN56_7X7MM
Y1	E3SB40E00001NE	HOSONIC	40MHz ±10ppm 3225 12pF	1	40MHz			X3225
			Shield cover	1	Shield cover			

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