

IC Manufacturer	IC Part Number	Application	Turns Ratio Pri:Sec ±2%		Talema Part Number
			Transmit	Receive	
Cirrus (Crystal)	CS61534, 61535, 61544, 61574, 1585	T1 & PCM-30	1:2CT	1:2CT	MJQ-006-40
	CS61535A, CS61574A, CS61575, CS6158A	T1	1:1.15	1:2CT	MJQ-002-40
	CS61535A, CS61574A, CS61575, CS6158A	E1	1:2CT	1:2CT	MJQ-006-40
	CS6152	-	1:1.36CT	1:2CT	MJQ-001-40
	CS61583	T1 / E1 (3.3 V)	1:2	1:2	MJQ-017-40
	CS61583	T1 / E1 (5.0 V)	1:1.15	1:1.15	MJQ-015-40
	CS61584, CS61584A	IQ3	1:2CT	1:2CT	MJQ-006-40
Dallas	DS2186, DS2187	-	1:1.36CT	1:2CT	MJQ-001-40
	DS2151, DS2152, DS2153, DS2154	T1 / E1 - Note 1	1:1.36CT	1:2CT	MJQ-001-40
	DS21Q352, DS21Q354	3V Quad	1:2CT	1:1CT	MJQ-003-40
	DS21Q552, DS21Q554	5V Quad	1:1.36CT	1:2CT	MJQ-001-40
Exar	T5650, T5620, T5675, T5681, T5683	-	1:2CT	1:2CT	MJQ-006-40
	56L22, 56L85, C240, C260, C262, C277	-	1:2CT	1:2CT	MJQ-006-40
	T5793, T5794	Quad E1 - Note 2	1:1/1.26CT	1:2CT	MJQ-007-40
	T5684	T1	1:1.36CT	1:2CT	MJQ-001-40
	T7288	CEPT	1:1.36CT	1:2CT	MJQ-001-40
	T5894	Quad E1	1:2CT	1:2CT	MJQ-006-40
	T5897	7 Channel E1	1:2CT	1:2CT	MJQ-006-40
Infineon (Siemens)	PEB2254, PEB2255	5V	1CT:1.41	1CT:1.41	MJQ-016-40
	PEB22554, PEB22504	3.3V	1:2.4	1:1	MJQ-022-40
	PEB22504	5V	1:1.5	1.41:1	MJQ-026-40
Level One	LXT300/301/305	-	1:2CT	1:2CT	MJQ-006-40
	LXT304A/305A	T1	1:1.15	1:2CT	MJQ-002-40
	LXT304A/305A	PCM-30/75/120° - Note 2	1:1/1.26	1:2CT	MJQ-007-40
	LXT310/311	-	1:2CT	1:1CT	MJQ-003-40
	LXT317/318	T1/ E1	1:2CT	1:2CT	MJQ-006-40
	LXT317/318	T1 / E1 - Optional	1:2	1:2CT	MJQ-021-40
	LXT317/318	T1 / E1 - Optional	1:2CT	1:1CT	MJQ-003-40
	LXT331	E1	1:2CT	1:1CT	MJQ-003-40
	LXT332	E1	1:2CT	1:2CT	MJQ-006-40
	LXT332	E1 - Optional	1:2	1:2CT	MJQ-021-40
	LXT334	Quad E1	1:1.36CT	1:2CT	MJQ-001-40
	LXT334	Quad T1	1:2CT	1:1CT	MJQ-003-40
	LXT335	Quad E1	1:1.36CT	1:2CT	MJQ-001-40
	LXT360/361/370	T1 / E1	1:2CT	1:1CT	MJQ-003-40
	LXT380/381/384/386/388	T1 / E1	1:2CT	1:1CT	MJQ-003-40
LXT380/381/384/386/388	T1 / E1	1:2CT	1CT:2	MJQ-020-40	
Lucent	T7288	CEPT	1:1.36CT	1:2CT	MJQ-001-40
	T7289	DS1	1:1.15	1:2CT	MJQ-002-40
	T7290	T1 & CEPT	1:1.36CT	1:2CT	MJQ-001-40
	T7633	Dual T1 / E1	1:2.1CT	1:2.1CT	MJQ-029-40
	T7683	Quad T1	1:2CT	1:2CT	MJQ-006-40
	T7688	Quad E1	1:1.36	1:1.36CT	MJQ-012-40
	T7689	Quad T1	1:1.14	1:1.14CT	MJQ-009-40
	T7690	DS1	1:1.14	1:1.14CT	MJQ-009-40
	T7690	CEPT	1:1.36	1:1.36CT	MJQ-012-40
PMC-Sierra	PM4341, PM6341	-	1:1.36CT	1:2CT	MJQ-001-40
	PM4314	-	1:1.36CT	1:2CT	MJQ-001-40
	PM4351	Comet	1:2.42	1:2.42	MJQ-028-40
Conexant Systems (Rockwell)	BT8370	T1 / E1	1:1.36CT	1:2CT	MJQ-001-40
	CN8380	T1 / E1	1:2CT	1CT:2	MJQ-020-40
	R8069, R8069A, R8069B	-	1:2CT	1:1CT	MJQ-003-40
VLSI	VPI4Q574	T1	1:1.15	1:2CT	MJQ-002-40
	VPI4Q574	E1	1:1.15	1:2CT	MJQ-002-40
	VPI4Q575	T1	1:1.15	1:2CT	MJQ-002-40
	VPI4Q575	E1 75R	1:1.15	1:2CT	MJQ-002-40

Notes:

- Dallas IC's use either a 1:1.15 or a 1:1.36 ratio transformer depending on the application. Consult the Dallas application notes or contact Talema.
- To obtain a 1:1 secondary ratio connect the following secondary contacts: 39-40, 34-35, 39-30 and 24-25;
a secondary ratio of 1:1.26 is obtained by connecting contacts: 38-40, 33-35, 28-30 and 23-25.

Features

- designed for optimum compatibility with all established interface IC's - see listing on last page
- module contains eight transformers for Quad T1/E1 Ports
- SMD design provides consistent and reliable coplanarity - fully pick and place compatible
- controlled parameters ensure full compliance with ITU-T G.703 when matched with recommended IC
- 1500 Vrms minimum isolation voltage
- ideal for all 1.544 and 2.048 Mbs interface applications
- manufactured in ISO-9001 approved TALEMA facility
- extended operating temperature of -40° to 85°C standard for all types



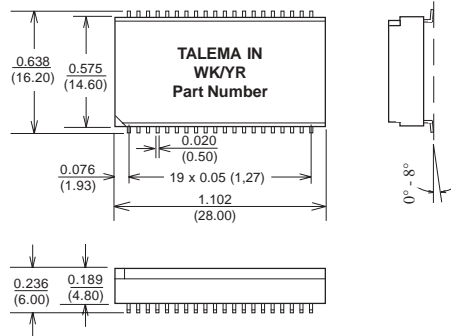
Electrical Specifications @ 25°C

Turns Ratio: **Bold** = IC side windings

MJQ Transformer Modules for Quad T1/E1 Ports										
Extended Operating Temperature Range: -40° to +85°C										
Part Number	Transformer	Turns Ratio (Pri:Sec +/-2%)	OCL (mH Min.)	L _L (μH Max)	C _{WV} (pF Max)	DCR (mOhms)		Pins		Schematic
						Pri	Sec	Primary	Secondary	
MJQ-001-40	Transmit	1:1.36CT	1.2	0.6	35	390	550	24-25, 29-30, 34-35, 39-40	16-18, 11-13, 6-8, 1-3	C
	Receive	1:2CT	1.2	0.6	35	390	780	4-5, 9-10, 14-15, 19-20	36-38, 31-33, 26-28, 21-23	
MJQ-002-40	Transmit	1:1.15	1.2	0.6	35	390	450	1-2, 6-7, 11-12, 16-17	39-40, 34-35, 29-30, 24-25	A
	Receive	1:2CT	1.2	0.6	35	390	780	21-23, 26-28, 31-33, 36-38	18-20, 13-15, 8-10, 3-5	
MJQ-003-40	Transmit	1:2CT	1.2	0.6	35	390	780	1-2, 6-7, 11-12, 16-17	38-40, 33-35, 28-30, 23-25	B
	Receive	1:1CT	1.2	0.6	35	390	390	21-22, 26-27, 31-32, 36-37	18-20, 13-15, 8-10, 3-5	
MJQ-006-40	Transmit	1:2CT	1.2	0.6	35	390	780	4-5, 9-10, 14-15, 19-20	36-38, 31-33, 26-28, 21-23	C
	Receive	1:2CT	1.2	0.6	35	390	780	24-25, 29-30, 34-35, 39-40	16-18, 11-13, 6-8, 1-3	
MJQ-007-40	Transmit	1:1/1.26	1.2	0.6	35	390	490	1-2, 6-7, 11-12, 16-17	38-40, 33-35, 28-30, 23-25	B
	Receive	1:2CT	1.2	0.6	35	390	780	21-22, 26-27, 31-32, 36-37	18-20, 13-15, 8-10, 3-5	
MJQ-009-40	Transmit	1:1.14	1.2	0.6	35	390	440	1-2, 6-7, 11-12, 16-17	39-40, 34-35, 29-30, 24-25	A
	Receive	1:1.14CT	1.2	0.6	35	390	440	36-38, 31-33, 26-28, 21-23	3-5, 8-10, 13-15, 18-20	
MJQ-012-40	Transmit	1:1.36	1.2	0.4	20	390	540	1-2, 6-7, 11-12, 16-17	39-40, 34-35, 29-30, 24-25	A
	Receive	1:1.36CT	1.2	0.5	20	390	540	36-38, 31-33, 26-28, 21-23	3-5, 8-10, 13-15, 18-20	
MJQ-015-40	Transmit	1:1.15	1.2	0.6	35	390	450	1-3, 6-8, 11-13, 16-18	38-40, 33-35, 28-30, 23-25	E
	Receive	1:1.15	1.2	0.6	35	390	450	4-5, 9-10, 14-15, 19-20	36-37, 31-32, 26-27, 21-22	
MJQ-016-40	Transmit	1CT:1.41	1.2	0.6	35	420	580	1-3, 6-8, 11-13, 16-18	39-40, 34-35, 29-30, 24-25	C
	Receive	1CT:1.41	1.2	0.6	35	420	580	21-23, 26-28, 31-33, 36-38	19-20, 14-15, 9-10, 4-5	
MJQ-017-40	Transmit	1:2	1.2	0.6	35	390	780	1-3, 6-8, 11-13, 16-18	38-40, 33-35, 28-30, 23-25	E
	Receive	1:2	1.2	0.6	35	390	780	4-5, 9-10, 14-15, 19-20	36-37, 31-32, 26-27, 21-22	
MJQ-020-40	Transmit	1:2CT	1.2	0.6	35	390	780	4-5, 9-10, 14-15, 19-20	36-38, 31-33, 26-28, 21-23	C
	Receive	1CT:2	1.2	0.6	35	390	780	1-3, 6-8, 11-13, 16-18	39-40, 34-35, 29-30, 24-25	
MJQ-021-40	Transmit	1:2	1.2	0.6	35	390	780	1-2, 9-10, 11-12, 19-20	39-40, 31-32, 29-30, 21-22	D
	Receive	1:2CT	1.2	0.6	35	390	780	23-25, 26-28, 33-35, 36-38	16-18, 13-15, 6-8, 3-5	
MJQ-022-40	Transmit	1:1	1.0	0.5	35	390	390	1-2, 8-9, 11-12, 18-19	39-40, 32-33, 29-30, 22-23	F
	Receive	1:2.4	1.0	0.5	35	410	900	24-25, 27-28, 34-35, 37-38	16-17, 13-14, 6-7, 3-4	
MJQ-023-40	Transmit	1:1.70	1.2	0.8	35	390	670	1-2, 6-7, 11-12, 16-17	39-40, 34-35, 29-30, 24-25	A
	Receive	1:1.36CT	1.2	0.6	35	390	540	21-23, 26-28, 31-33, 36-38	18-20, 13-15, 8-10, 3-5	
MJQ-024-40	Transmit	1:1.36CT	1.2	0.6	35	390	540	24-25, 29-30, 34-35, 39-40	16-18, 11-13, 6-8, 1-3	C
	Receive	1:1CT	1.2	0.6	35	390	390	4-5, 9-10, 14-15, 19-20	36-38, 31-33, 26-28, 21-23	
MJQ-026-40	Transmit	1:1.5	1.0	0.5	35	390	580	1-2, 8-9, 11-12, 18-19	39-40, 32-33, 29-30, 22-23	F
	Receive	1.41:1	1.0	0.5	35	390	390	24-25, 27-28, 34-35, 37-38	16-17, 13-14, 6-7, 3-4	
MJQ-028-40	Transmit	1:2.42	1.2	0.6	35	390	940	1-3, 6-8, 11-13, 16-18	38-40, 33-35, 28-30, 23-25	E
	Receive	1:2.42	1.2	0.6	35	390	940	4-5, 9-10, 14-15, 19-20	36-37, 31-32, 26-27, 21-22	
MJQ-029-40	Transmit	1:2.1CT	1.2	0.6	35	390	810	1-2, 6-7, 11-12, 16-17	38-40, 33-35, 28-30, 23-25	B
	Receive	1:2.1CT	0.6	0.6	35	280	590	21-22, 26-27, 31-32, 36-37	18-20, 13-15, 8-10, 3-5	
MJQ-030-40	Transmit	1:2.45CT	1.2	0.6	35	390	960	1-2, 6-7, 11-12, 16-17	38-40, 33-35, 28-30, 23-25	B
	Receive	1:2.45CT	0.6	0.6	35	280	690	21-22, 26-27, 31-32, 36-37	18-20, 13-15, 8-10, 3-5	

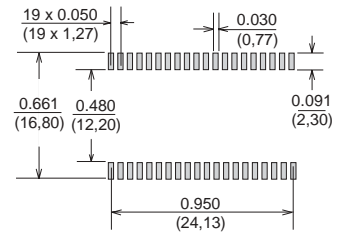
Packaging & Dimensions for SMD Quad Port Transformer Modules

MJQ Series Quad Module Package



Surface coplanarity will be <math><0.004 (0.10)</math>

Suggested Pad Layout

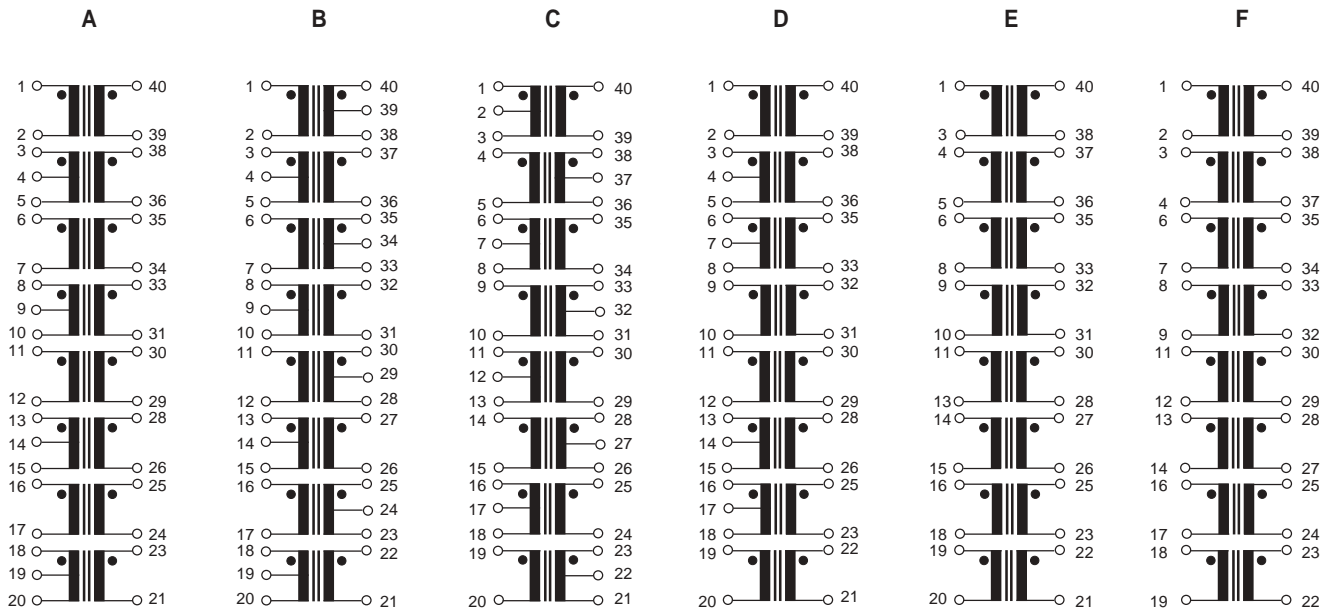


Weight: 5 grams

Dimensions: Inches (Millimeters)

Tolerance: $\pm 0.010 (0.25)$ unless specified otherwise

Schematics



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