



## IC - Transformer Selection Guide for T1/E1/CEPT/ISDN-PRI Interface Modules

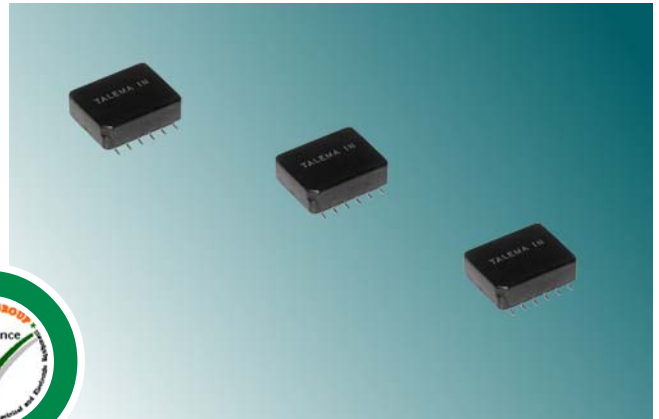
IC Manufacturer	IC Part Number	Application	Turns Ratio		Talema Part Number
			Pri:Sec	±2%	
Cirrus Logic (Crystal)	61577	T1 & E1	1ct:2ct	1ct:2ct	MJS-017A
	61304A, 61305A, 61535A, 61574A, 61575	T1	1ct:1.15ct	1ct:2ct	MJS-019A
	61304A, 61305A, 61535A, 61574A, 61575	75 E1	1ct:1ct	1ct:2ct	MJS-018A
	61304A, 61305A, 61535A, 61574A, 61575	120 E1	1ct:1.26ct	1ct:2ct	MJS-025A
	61884	T1/E1/J1	1ct:2ct	1ct:2ct	MJS-017A
	61582, 61583		1ct:1ct	1ct:2ct	MJS-018A
	61310, 61581		1ct:1ct	1ct:2ct	MJS-018A
	61880, 61881		1ct:1.15ct	1ct:2ct	MJS-019A
	61584, 61584A	IQ3	1ct:2ct	1ct:2ct	MJS-017A
	61582, 61583, 61584, 61584A	IQ5	1ct:1.15ct	1ct:1.15ct	MJS-013A
Maxim (Dallas)	DS2196, DS2155, DS2149, DS21448		1ct:1ct	1ct:2ct	MJS-018A
	DS2151, DS2152, DS2153, DS2154		1ct:1.15ct	1ct:1ct	MJS-014A
	DS2151, DS2152, DS2153, DS2154		1ct:1ct	1ct:1.36ct	MJS-031A
	DS2148/Q48/Q348/349/Q59	3V	1ct:1ct	1ct:2ct	MJS-018A
	DS2148, Q48	5V	1ct:1ct	1ct:1.36ct	MJS-031A
	DS21352/Q352, DS21354/Q354	T1/E1	1ct:1ct	1ct:2ct	MJS-018A
	DS21552/Q552, DS21554/Q554	T1/E1	1ct:1.15ct	1ct:1ct	MJS-014A
	DS21552/Q552, DS21554/Q554	T1/E1	1ct:1ct	1ct:1.36ct	MJS-031A
	DS26502, DS2503, DS21455, DS21458, DS26528		1ct:1ct	1ct:2ct	MJS-018A
Exar	XRT5683A, XRT59L91, XRT5894, XRT5897, XRT5997		1ct:2ct	1ct:2ct	MJS-017A
	XRT5793, XRT5794		1ct:1ct	1ct:1ct	MJS-046A
	XRT81L27, 82L24, 82D20		1ct:2ct	1ct:2ct	MJS-017A
	XRT83L30, XRT83L34, XRT83L314, XRT86L38		1ct:1ct	1ct:2ct	MJS-018A
	XRT86L30, XRT86L32, XRT86L34, XRT86L38		1ct:1ct	1ct:2ct	MJS-018A
	T5684, XRT7288, 82D20		1ct:2ct	1ct:1.36ct	MJS-028A
IDT	82V2044, 82V2048, 82V2048L, 82V2054, 82V2058		1ct:2ct	1ct:2ct	MJS-017A
	82V2041E, 82V2042E, 82V2044E, 82V2048E		1ct:1ct	1ct:2ct	MJS-018A
	82V2081, 82V2082, 82V2084, 82V2088		1ct:1ct	1ct:2ct	MJS-018A
	82P2281, 82P2282, 82P2284, 82P2288		1ct:1ct	1ct:2ct	MJS-018A
Infineon (Siemens)	PEB2235, PEB2235A1, PEB2235B1	T1/CEPT	1ct:1.41ct	1ct:1.41ct	MJS-021A
	PEB2254, PEB2255	E1/T1/J1	1ct:1.41ct	1ct:1.41ct	MJS-021A
	PEB22504, PEB22554, PEB2256	3.3V	1ct:2.4ct	1ct:1ct	MJS-032A
Intel (Level One)	LXT300, LX301		1ct:2ct	1ct:2ct	MJS-017A
	LXT304, LXT305, LXT307	T1/E1	1ct:2ct	1ct:2ct	MJS-017A
	LXT304, LXT305, LXT307	T1	1ct:1.15ct	1ct:2ct	MJS-019A
	LXT304, LXT305, LXT307	75, 120 E1	1ct:1ct	1ct:2ct	MJS-018A
	LXT304, LXT305, LXT307	DSX-1, D4	1ct:2.3ct	1ct:2ct	MJS-015A
	LXT310, LXT312, LXT313, LXT315, LXT317, LXT318		1ct:1ct	1ct:2ct	MJS-018A
	LXT331	T1/E1	1ct:1ct	1ct:2ct	MJS-018A
	LXT331, LXT332		1ct:2.3ct	1ct:2ct	MJS-015A
	LXT331, LXT332		1ct:1.15ct	1ct:2ct	MJS-019A
	LXT331, LXT332		1ct:2ct	1ct:2ct	MJS-017A
	LXT334, LXT335	T1/E1	1ct:2ct	1ct:2ct	MJS-017A
	LXT334, LXT335	120/75 E1	1ct:1ct	1ct:1.36ct	MJS-031A
	LXT336		1ct:1ct	1ct:1ct	MJS-046A
	LXT350, LXT351, LXT359	T1/E1	1ct:1ct	1ct:2ct	MJS-018A
	LXT350, LXT351		1ct:1.15ct	1ct:2ct	MJS-019A
	LXT350, LXT351, LXT360, LXT361	120 E1	1ct:2.3ct	1ct:2ct	MJS-015A
	LXT360, LXT361, LXT362, LXT363	T1/E1	1ct:1ct	1ct:2ct	MJS-018A
	LXT360, LXT361, LXT362, LXT363		1ct:1.15ct	1ct:2ct	MJS-019A
	LXT380, LXT381, LXT384, LXT386, LXT388	T1/ E1	1ct:1ct	1ct:2ct	MJS-018A
	LXT3104, LXT3108		1ct:1ct	1ct:1ct	MJS-046A
Agere (Lucent)	T7288, T7290A	CEPT/E1	1ct:2ct	1ct:1.36ct	MJS-028A
	T7289A	DS1	1ct:1.15ct	1ct:2ct	MJS-019A
	T7630, T7688, T7690, T7698	CEPT	1ct:1.36ct	1ct:1.36ct	MJS-010A
	T7630, T7688, T7690, T7698	DS1	1ct:1.15ct	1ct:1.15ct	MJS-013A
	T7693, T7697	CEPT	1ct:2.42	1ct:2.42	MJS-024A
	TLIU04C1	DS1	1ct:1.15ct	1ct:1.15ct	MJS-013A
	TLIU04C1	CEPT	1ct:1.36ct	1ct:1.36ct	MJS-010A
PMC-Sierra	PM4341, PM6341, PM4314		1ct:2ct	1ct:1.36ct	MJS-028A
	PM4318, PM4319, PM4323, PM4325		1ct:2ct	1ct:2ct	MJS-017A
	PM4351	COMET	1ct:2.42	1ct:2.42	MJS-024A
Mindspeed (Conexant)	BT8510	T1/E1	1ct:1ct	1ct:2ct	MJS-018A
	BT8510	T1/E1	1ct:1.26ct	1ct:2ct	MJS-025A
	BT8370, BT8375, BT8376	Low Power	1ct:1.15ct	1ct:1ct	MJS-014A
	BT8370, BT8375, BT8376	Better RI	1ct:1ct	1ct:1.36ct	MJS-031A
VLSI	VP14Q574	T1	1ct:1.15ct	1ct:2ct	MJS-019A
	VP14Q574	E1	1ct:1.26ct	1ct:2ct	MJS-025A



# E1/T1/ PRI/CEPT Dual Transformer Modules

## Features

- SMD design ideal for pick and place compatibility while providing unrivaled coplanarity
- common mode choke included on both Tx and Rx channels for optimum EMI performance
- controlled parameters ensure full compliance with ITU-TG.703 when matched with recommended IC
- manufactured in an ISO-9001:2000, TS-16949:2002 and ISO-14001:2004 certified Talema facility
- 1500Vrms minimum isolation voltage
- extended operating temperature: -40° to +85°C
- fully RoHS compliant and meets lead free reflow level J-STD-020C



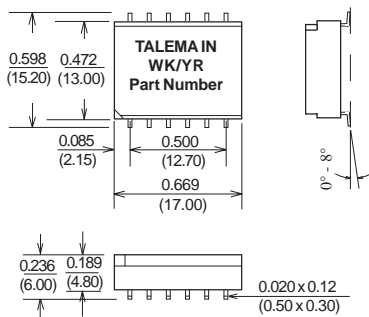
## Electrical Specifications @ 25°C

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

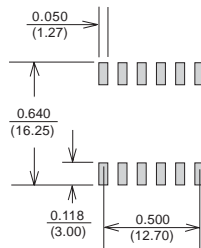
### MJS Series - Dual Transformers with Common Mode Chokes on Tx & Rx Channels

Part Number	Transformer - I								Transformer - II							
	Turns Ratio +/-2%	OCL (mH Min)	L <sub>L</sub> (μH Max)	C <sub>WW</sub> (pF Max)	DCR (Ohms)		Pri. Pins	Sec. Pins	Turns Ratio +/-2%	OCL (mH Min)	L <sub>L</sub> (μH Max)	C <sub>WW</sub> (pF Max)	DCR (Ohms)		Pri. Pins	Sec. Pins
					Pri.	Sec.							Pri.	Sec.		
MJS-010A	1ct: <b>1.36ct</b>	1.2	0.60	30	0.80	1.10	1-3	12-10	1ct: <b>1.36ct</b>	1.2	0.60	30	0.80	1.10	4-6	9-7
MJS-013A	1ct: <b>1.15ct</b>	1.2	0.60	35	0.80	0.95	1-3	12-10	1ct: <b>1.15ct</b>	1.2	0.60	35	0.80	0.95	4-6	9-7
MJS-014A	1ct: <b>1.15ct</b>	1.2	0.60	35	0.90	1.05	1-3	12-10	1ct: <b>1ct</b>	1.2	0.60	35	0.90	0.90	4-6	9-7
MJS-015A	1ct: <b>2.3ct</b>	1.2	0.60	25	0.60	1.40	1-3	12-10	1ct: <b>2ct</b>	1.2	0.60	25	0.60	1.20	4-6	9-7
MJS-017A	1ct: <b>2ct</b>	1.2	0.60	25	0.60	1.20	1-3	12-10	1ct: <b>2ct</b>	1.2	0.60	25	0.60	1.20	4-6	9-7
MJS-018A	1ct: <b>1ct</b>	1.2	0.60	35	0.90	0.90	1-3	12-10	1ct: <b>2ct</b>	1.2	0.60	35	0.90	1.80	4-6	9-7
MJS-019A	1ct: <b>1.15ct</b>	1.2	0.60	35	0.80	0.95	1-3	12-10	1ct: <b>2ct</b>	1.2	0.60	35	0.80	11.60	4-6	9-7
MJS-021A	1ct: <b>1.41ct</b>	1.2	0.60	30	0.70	1.00	1-3	12-10	1ct: <b>1.41ct</b>	1.2	0.60	30	0.70	1.00	4-6	9-7
MJS-024A	1ct: <b>2.42ct</b>	1.2	0.60	25	0.60	1.50	1-3	12-10	1ct: <b>2.42ct</b>	1.2	0.60	25	0.60	1.50	4-6	9-7
MJS-025A	1ct: <b>1.26ct</b>	1.2	0.60	30	0.80	1.00	1-3	12-10	1ct: <b>2ct</b>	1.2	0.60	30	0.80	1.60	4-6	9-7
MJS-028A	1ct: <b>2ct</b>	1.2	0.60	30	0.70	1.20	1-3	12-10	1ct: <b>1.36ct</b>	1.2	0.60	30	0.70	0.90	4-6	9-7
MJS-031A	1ct: <b>1ct</b>	1.2	0.60	35	0.90	0.90	1-3	12-10	1ct: <b>1.36ct</b>	1.2	0.60	35	0.90	1.20	4-6	9-7
MJS-032A	1ct: <b>2.4ct</b>	1.2	0.60	35	0.90	2.10	1-3	12-10	1ct: <b>1ct</b>	1.2	0.60	35	0.90	0.90	4-6	9-7
MJS-046A	1ct: <b>1ct</b>	1.2	0.60	35	0.90	0.90	1-3	12-10	1ct: <b>1ct</b>	1.2	0.60	35	0.90	0.90	4-6	9-7

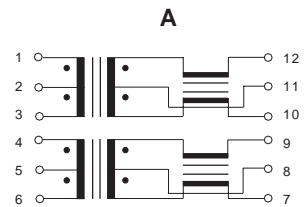
## Package



## Suggested Pad Layout



## Schematic



Surface Coplanarity will be 0.004(0.10) maximum

Dimensions: Inches (Millimeters)

Tolerance: ±0.010 (0.25) unless specified otherwise