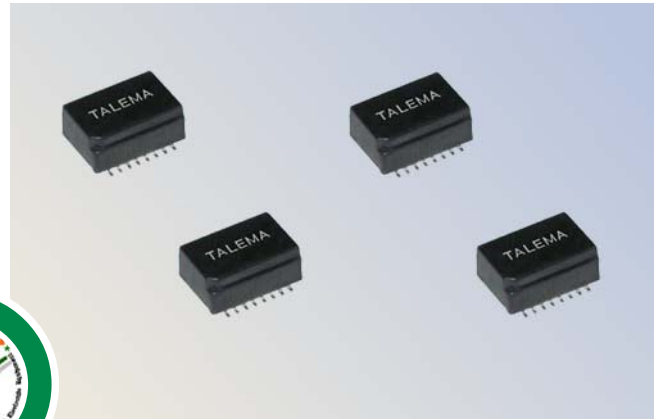




# ISDN S<sub>0</sub> Miniature SMD Interface Modules

## Features

- excellent output characteristics ensure compliance with CCITT.I.430 pulse waveform template when used with recommended IC pairing
- SMD modules are designed for pick and place compatibility
- excellent and consistent balance between windings
- modular design maximizes suppression effectivity and transmission properties
- full compatibility with all common IC's
- manufactured in ISO-9001:2000, TS-16949:2002 and ISO-14001:2001 certified Talema facility
- fully RoHS compliant and meets lead free reflow level J-STD-020C
- operating temperature: -40° to 85°C
- storage temperature: -40 to +125°C



## Electrical Specifications @ 25°C

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

**Miniature Chip SMD Modules comply with Functional Insulation Level EN60950, UL1950 and UL1459**

Part Number	L <sub>P</sub> (mH Min)	Turns Ratio	L <sub>L</sub> (μH Max)	C <sub>C</sub> (pF Max)	R <sub>CU</sub> P (Ohms)	R <sub>CU</sub> S (Ohms)	V <sub>P</sub> (Vrms)	Schematic
MMJ-100A or B-XXX	25	1:1:1:1	5	50	2.6	2.7	1500	A or B
MMJ-103A or B-XXX	25	1:1:2:2	5	50	3.7	8.4	1500	A or B
MMJ-105A or B-XXX	25	1:1:2.5:2.5	5	50	5.2	10.5	1500	A or B

### Common Mode Choke

Basic P/N + Suffix	L <sub>N</sub> (μH)	R <sub>CU</sub> (Ohms)	Basic P/N + Suffix	R <sub>CU</sub> (Ohms)	Basic P/N + Suffix	R <sub>CU</sub> (Ohms)
MMJ-100A-000	No Choke		MMJ-103A -000	No Choke	MMJ-105A-000	No Choke
MMJ-100A or B-500	50	0.4	MMJ-103A or B-500	0.5	MMJ-105A or B-500	0.7
MMJ-100A or B-101	100	0.5	MMJ-103A or B-101	0.6	MMJ-105A or B-101	0.9
MMJ-100A or B-501	500	0.3	MMJ-103A or B-501	0.6	MMJ-105A or B-501	0.8
MMJ-100A or B-502	5000	0.8	MMJ-103A or B-502	0.9	MMJ-105A or B-502	1.5

## Test Conditions:

Polarity and Turns Ratio: ±1%

Inductance: 25mH minimum, line side windings in series @ 10kHz, 100mV

Leakage Inductance: Line side windings in series, IC side windings short circuited - measurement @ 100kHz, 100mV

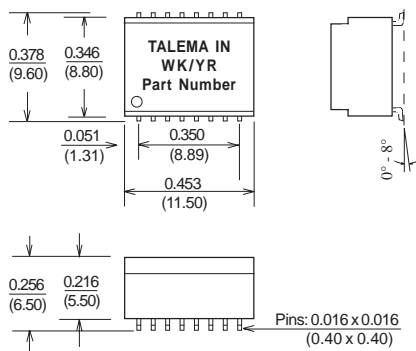
Coupling capacitance: IC side windings in series to Line side windings in series @ 10kHz, 100mV

Common Mode Choke Inductance: 100kHz, 20mV

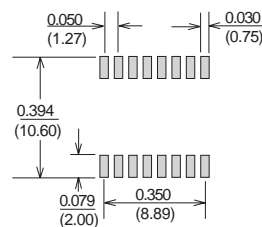
Test Voltage: 1.5kV for 2 Sec. - Line side windings in series to IC side windings in series

Standard Packaging: Tape and Reel

## MMJ Miniature Module

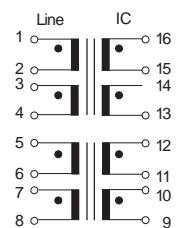


## Suggested Pad Layout



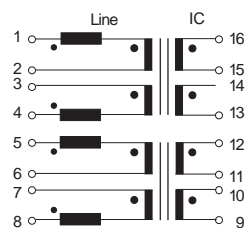
## Schematic (Without Choke)

A

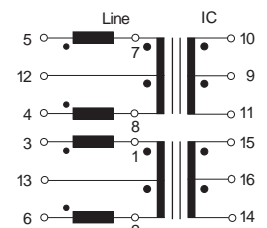


## Schematics - With Choke

A



B



Surface Coplanarity will be 0.004 (0.10)

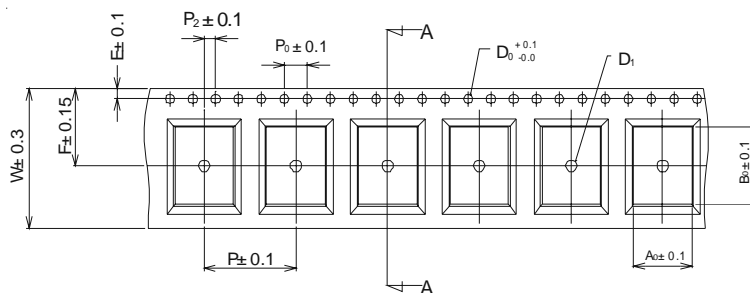
Dimensions: Inches (Millimeters)

Tolerance: ±0.010 (0.25) unless specified otherwise



## Packing and Dimensions

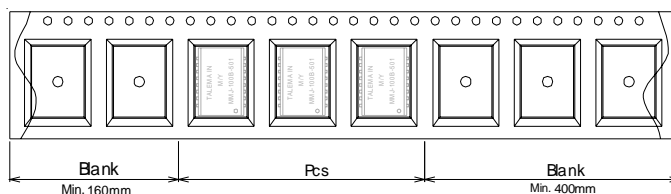
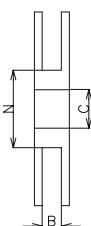
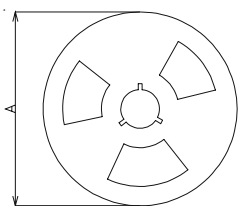
### Dimensions for carrier tape (Unit : mm)



Dimensions are in mm

Type	Dimensions in mm												Reel Size	Quantity (Pcs/Reel)	Quantity (Reel/Cased)
	W	F	E	P <sub>2</sub>	P <sub>0</sub>	D <sub>0</sub>	D <sub>1</sub>	P	A <sub>0</sub>	B <sub>0</sub>	T	K <sub>0</sub>			
MMJ	24.00	11.50	1.75	2.00	4.00	Ø1.5	Ø1.50	16.00	10.20	12.05	0.35	7.05	330x24	600	5/3000

### Reel dimensions



Drawing direction →

Reel Dimensions in mm				
Type	A	B	C	N
330 x 24	330	24	20.2	100

### Outer Carton

#### Inner Carton

