



# SURFACE MOUNT LINE MATCHING TRANSFORMERS FAAT 16XX SERIES

## FEATURES

Fully encapsulated  
Low profile  
High dielectric strength  
Ten models available  
Ex stock  
Competitively priced  
Lead free  
RoHS compliant

## OPTIONS

Tape and reel is standard  
[400 pcs. per reel]  
Bulk packaging available for  
faller quantities  
Custom design available  
Tolerance: 5% is standard,  
Tighter tolerance available

## COMMON APPLICATIONS

Line matching  
Modems  
Fax modems  
Laptop Computer  
Telecommunications  
Instrumentation  
PCMCIA

## ELECTRICAL CHARACTERISTICS

Parameters		Unit	Part Number										
			FAAT1601	FAAT1602	FAAT1603	FAAT1604	FAAT1605	FAAT1601A	FAAT1602A	FAAT1603A	FAAT1604A	FAAT1605A	
Ref. Temperature Data		°C	25	25	25	25	25	25	25	25	25	25	25
Impedance (min./at 1.0kHz)	Primary	Ω	600	600	600	600 [150,150]	600 [150+150]	600	600	600	600 [150,150]	600 [150+150]	
	Secondary	Ω	600	600 [150,150]	600 [150+150]	600 [150,150]	600 [150+150]	600	600 [150,150]	600 [150+150]	600 [150,150]	600 [150+150]	
Inductance (min./at 0.2 kHz)	Primary	H	2.8	2.8	2.8	2.8 [0.7,0.7]	2.8 [0.7+0.7]	2.8	2.8	2.8	2.8 [0.7,0.7]	2.8 [0.7+0.7]	
	Secondary	H	2.8	2.8 [0.7,0.7]	2.8 [0.7+0.7]	2.8 [0.7,0.7]	2.8 [0.7+0.7]	2.8	2.8 [0.7,0.7]	2.8 [0.7+0.7]	2.8 [0.7,0.7]	2.8 [0.7+0.7]	
DC-Resistance [Typical/±10%]	Primary	Ω	66	66	66	66 [33,33]	66 [33+33]	90	90	90	90 [45,45]	90 [45+45]	
	Secondary	Ω	66	66 [33,33]	66 [33+33]	66 [33,33]	66 [33+33]	90	90 [45,45]	90 [45+45]	90 [45,45]	90 [45+45]	
Turns Ratio(±2%)		-	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	
Winding Configurations		-	-	one winding centre tapped	one winding split	both windings centre tapped	both windings split	-	one winding centre tapped	one winding split	both windings centre tapped	both windings split	
Insertion Loss (at 2.0kHz)		dB	≤ 1.5					≤ 2.0					
Return Loss Transformer (0.2-4.0kHz) In Networks		dB	≥ 10.0 ≥ 21.0					≥ 8.0 ≥ 20.0					
Shunt Loss [Typical]		kΩ	9.0					9.0					
Frequency Response [Typ./0.2-3.5kHz]		dB	-0.3					-0.5					
Wide Band Response(0.2-10kHz)		dB	-2.5					-4.5					
Power Level		dBm	-45.0-+3.0					-43.0-+3.0					
Longitudinal Balance(0.3-4.0kHz)		dB	-80.0					-70.0					
Distortion[0 dB/at 1.0kHz]		%	≤ 0.1					≤ 0.25					
Leakage Induction[Typical]		mH	14.0					14.0					
Dielectric Strength[P/S]		kVDC	6.5					6.5					
Temperature Range	Operation	°C	-10-+60					-10-+60					
	Storage	°C	-20-+70					-20-+70					
Specifications Met			BS 6240: Construction and flammability [UL 94 V0] BS 6310: Isolation BS 6305: Return loss [1982/paragraph 4.3.2.2/b]					CCITT: Rec. T/CD 1-1 [Sept. 1982]					



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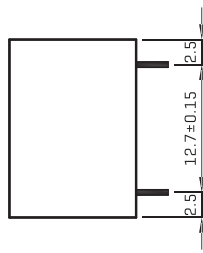
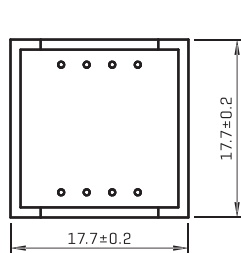
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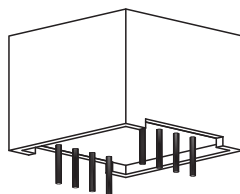
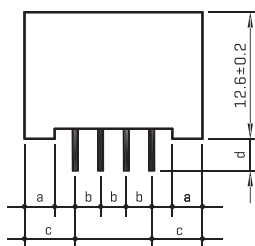
## PHYSICAL CHARACTERISTICS



Note:  
The FAAT1600 Series Line Matching Transformers meet the return loss specifications of BS 6305.

It is important, however, to use the circuit recommended by BS 6305 for return loss

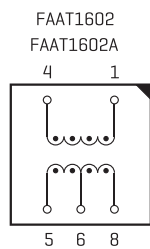
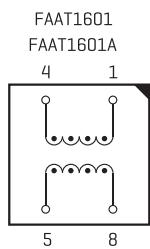
The FAAT1600 Series meet EN41003.



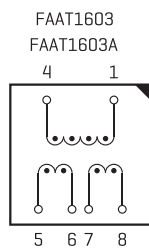
- a=3.0
- b=2.54
- c=5.04
- d=3.2±0.8

ALL DIMENSIONS IN MM

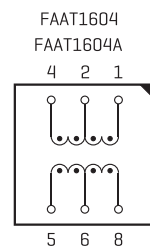
## TECHNICAL INFORMATION



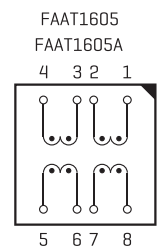
one-winding  
centre-tapped



one-winding  
split



both-winding  
centre-tapped



both-winding  
split

Due to the unique design and the most advanced manufacturing techniques the 2 coils are fully identical, meaning there is no real primary nor secondary winding. Depending on the application, the transformers can be used either way.