



MICROTRAN.

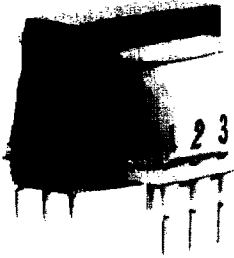
TELECOMMUNICATIONS TRANSFORMERS- FCC PART 68

File No's. 138028
142035

File No. LR81383

International, coupling, hybrid, voice, V.32 & V.34 data applications.

STANDARD TELECOMMUNICATIONS TRANSFORMERS



Part No.	Part No.	Ratio	Imp.	Att.	Wdg.	Wdg.	Wdg.	Wdg.	Wdg.	Notes
T2316	T2316	4000:600	0	1.0	A	0.5	340	51	6	For bridging applications (UL) Electrostatic Shield Int. Voice/Data International Voice (Dale TA10-04) Low cost (Stancor TTPC-06) Low Cost (Stancor TTPC-07) (James 13648) (Stancor TTPC-11)
T2110	T2110	900:900	0	1.0	J	0.1	55	78	6	
TH2104	TH2104	600:600	0	1.0	A	0.2	38	52	6	
TH2106	TH2106	600CT:600CT	0	1.0	D	0.3	38	52	6	
TTC-09	T2106	600CT:600CT	0	0.8	D	0.3	36	50	6	
TTC-105	T2113 ⁵	600:600	90	2.0	A	+0.5/-2.5	71	117	6	
TTC-105-1	T2114	600:600CT	90	2.0	B	+0.5/-2.5	71	117	6	
TTC-108	DCM21-PC	600CT:600CT	0	1.2	D	0.3	44	56	6	
TTC-110	T2104	600:600	0	0.8	A	0.3	36	50	6	
TTC-112	T2108	600:900	0	0.9	A	0.2	36	77	6	
TTC-13	TTC-13	4000:600	0	0.9	A	0.3	225	45	6	

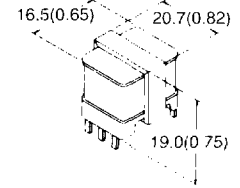


FIG. 6

ENCAPSULATED TELECOMMUNICATIONS TRANSFORMERS FOR SEVERE ENVIRONMENTAL CONDITIONS



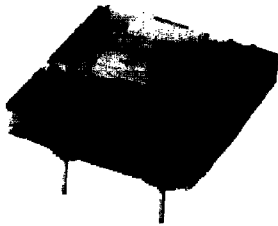
Part No.	Part No.	Ratio	Imp.	Att.	Wdg.	Wdg.	Wdg.	Wdg.	Wdg.	Notes
DP-101A	DP-101A	600CT:600CT	5	0.9	D	0.5	38	48	B	—
DP-105A	DP-105A	4KCT:600CT	1	1.1	B	0.6	280	35	B	—
DP-108A	DP-108A	600:600CT	5	0.9	D	0.6	38	48	B	—
DP-128A	DP-128A	600:600CT/600CT	0	0.8	M	0.7	37	42/42	A	—
DP-204A	DP-204A	600:600CT	10	0.9	B	0.5	36	50	C	—
DP-226A	DP-226A	600:600CT/600CT	0	0.9	I	0.7	41	36/36	C	—

Wdg.	Wdg.	Wdg.	Wdg.
A	22.0(0.87)	22.0(0.87)	21.0(0.83)
B	22.0(0.87)	22.0(0.87)	20.0(0.79)
C	31.0(1.22)	32.0(1.26)	30.0(1.18)



FIG. 6EM

.47" STANDARD LOW PROFILE TELECOMMUNICATIONS TRANSFORMERS



Part No.	Part No.	Ratio	Imp.	Att.	Wdg.	Wdg.	Wdg.	Wdg.	Wdg.	Notes
TM104	TM104	600:374	0	2.0	A	0.1	108	120	6L	1,000V hi-pot
TTC-263	TM103	600:600	0	0.8	A	0.3	25	20	6L	(Midcom 671-8000)
TTC-264	TM105	600:470	100	2.3	A	+0.5/-2.5	108	120	6L	(Midcom 671-8001)
TTC-265	TM106	600:470	100	1.9	A	+0.5/-2.0	108	120	6L	(Midcom 671-8005)

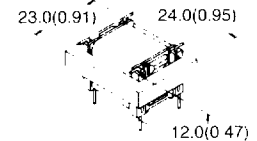
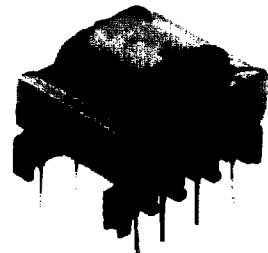


FIG. 6L

.58" STANDARD LOW PROFILE TELECOMMUNICATIONS TRANSFORMERS



Part No.	Part No.	Ratio	Imp.	Att.	Wdg.	Wdg.	Wdg.	Wdg.	Wdg.	Notes
TTC-109N	T2111	600:600	90	2.0	A	1.0	71	117	6H1	Data/Modem
TTC-109N-1	T2112	600:600CT	90	2.0	B	1.0	71	117	6H1	Data/Modem
TTC-109N-2	TTC-109N-2	600:600CT	90	2.0	E	3.0	71	117	6H1	Data/Modem
TTC-204N	TTC-204N	600:600	100	2.5	A	0.7	180	75	6H1	(Midcom 671-1046)

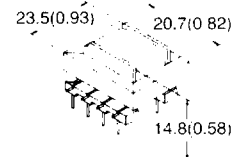
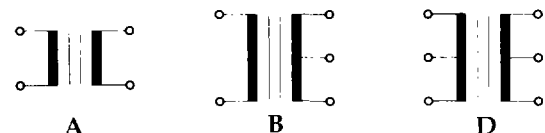


FIG. 6H1

NOTES

- Note 1: CT* indicates windings can be connected as a centertapped winding or as two isolated windings.
- Note 2: Typical insertion loss (IL) in dB @ rated unbalanced maDC, (dBm) & 1kHz
- Note 3: Typical frequency response (FR) from 0.3 to 3.5kHz, relative to 1kHz at rated maDC & (dBm).
- Note 4: Outline drawings show max. no. of pins. Actual part may have fewer pins
- Note 5: Add 3dB to IL for single hybrid use with balancing network on 2-wire side.

CIRCUIT DIAGRAMS



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TELECOMMUNICATIONS TRANSFORMERS- FCC PART 68



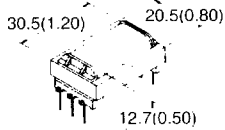
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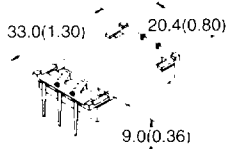
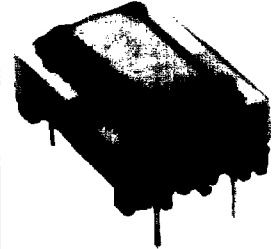
MICROTRAN.

HIGH PERFORMANCE LOW PROFILE TELECOMMUNICATIONS TRANSFORMERS



7H

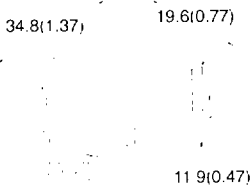
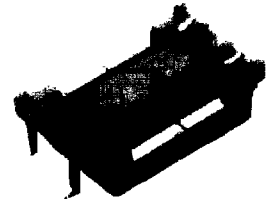
TTC	T9311	600:600	90	1.8	A	+0.5/-2.75	75	100	7H	0.50" max. ht
TTC-142-2	T9312	600:600 Split	90	1.8	E	+0.5/-2.75	75	100	7H	Data/Modem
TTC-143	TTC-143	600:600	90	1.6	A	+0.25/-2.25	75	100	7H	For hi-speed modem
TTC-158	TH9304	600:600	0	1.1	A	0.3	44	56	7H	BSI telecom
TTC-158-1	TH9306	600CT:600CT	0	1.1	D	0.3	44	56	7H	3750VAC hi-pot
TTC-174	T9320	600:600:600	50	1.0 ⁵	E	+0.3/-1.6	75	85/85	7H	Single hybrid
TTC-176-2	T9317	600:600Split	50	1.0	E	+0.3/-1.6	75	95	7H	0.50" max. ht (UL)
TTC-215	TTC-215	600:600	90	1.6	A	+0.25/-3.0	75	100	7H	Low cross talk
TTC-221	TTC-221	600:600	80	1.3	A	+0.5/-3.0	71	100	7H	3750VAC hi-pot
TTC-231	TTC-231	600:1200CT	90	1.5	B	+0.5/-1.8	75	170	7H	(Microm 671-1489)
TTC-238	TTC-238	600:600	0	1.4	A	0.4	46	57	7H	BABT telecom
TTC-238-1	TTC-238-1	600CT:600CT	0	1.4	D	0.7	47	62	7H	—
TTC-243	TTC-243	600CT:S:600CT	0	1.5	J	0.8	57	81	7H	BABT telecom
TTCC-7H Shield	TTCC-7H Shield	MU Metal Shield	—	—	—	—	—	—	7H	EMI slip-on can



7HL

.36" ABOVE PCB HIGH PERFORMANCE LOW PROFILE TELECOMMUNICATIONS TRANSFORMERS

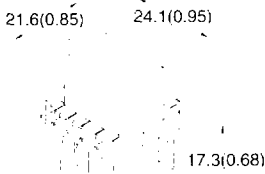
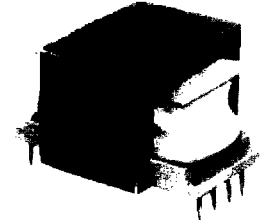
TTC	TTC	600:600CT ⁵	90	1.8	E	+0.5/-2.75	75	100	7HL	.36" max ht
TTC-142-2LB	TTC-142-2LB	600:600	90	1.8	A	+0.5/-2.75	75	100	7HL	.36" max ht
TTC-142-LB	TTC-142-LB	600:600	90	1.6	A	+0.25/-2.25	85	110	7HL	.36" max ht



12U

.47" HYBRID LOW PROFILE TELECOMMUNICATIONS TRANSFORMERS

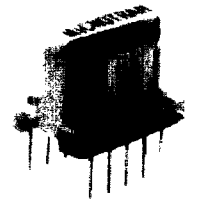
TL	TL	600CT:600 Split	90	1.6	R	2.5	63	103	12U	Data/Modem
TL1111	TL1111	600CT:600 Split	90	1.8	R	0.5	73	134	12U	Handles loop currents (UL)
TL1114	TL1114	600CT:600 Split	90	1.8	R	0.7	98	78/78	12U	Handles loop currents



12EE

INTERNATIONAL HYBRID TELECOMMUNICATIONS TRANSFORMERS

TH	TH	(4W)600:600:600	0	1.2 ⁵	E	0.5	60	25/25	12EE	3750 rms hi-pot
TH2220	TH2220	(4W)600:600:600	0	1.2 ⁵	E	0.5	60	25/25	12EE	3750 rms hi-pot



8M

HIGH PERFORMANCE TELECOMMUNICATIONS TRANSFORMERS

TTC	TTC	600:600CT	0	1.2	B	0.3	33	56	8M	Australia telecom
TTC-198	TTC-198	600:600CT	0	1.2	B	0.3	33	56	8M	Australia telecom
TTC-211	TTC-211	600:600	90	1.2	A	+1.0/-2.5	52	25	8M	Low cost
TTC-211-2	TTC-211-2	600:600CT	90	1.2	E	+1.0/-2.5	52	25	8M	—
TTC-212	TTC-212	hidg:0.275Hy	80	—	G	—	91	—	8M	—

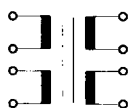


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CIRCUIT DIAGRAMS



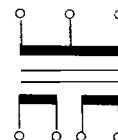
E



I



J



R



G

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