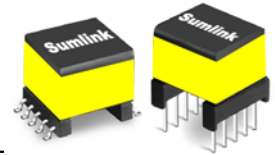


# HDSL LINE TRANSFORMERS

## ● For use with Mindspeed chipsets



Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

Part Number	Mount.	Matched to Conexant's Chipset No.	Application	Turns Ratio Line - Chip (±2%)	Inductance - Line Side @ 10 kHz, 100 mV (1-5) with (2-4) shorted	Leakage Inductance - Line Side @ 100 kHz (1-5) with (2-4) and (7-9) shorted	DC Resistance	
							Line Side (1-4) = (2-5)	Chip Side (7-9)
ST-S1017	THT	BT8921/BT8970	784 Kpbs	2CS:1	3.0 mH ±6%	15 µH MAX @ 0.02 Vrms	≤ 1.25 Ω	≤ 1.00 Ω
ST-S1059	SMT	BT8921/BT8970	784 Kpbs	2CS:1	3.0 mH ±10%	15 µH MAX @ 0.02 Vrms	≤ 1.25 Ω	≤ 1.00 Ω
ST-S1018	THT	BT8921/BT8970	1168 Kpbs	2CS:1CT	2.0 mH ±10%	13 µH MAX @ 0.10 Vrms	≤ 1.25 Ω	≤ 1.00 Ω
ST-S1028	SMT	BT8921/BT8970	1168 Kpbs	2CS:1CT	2.0 mH ±6%	11 µH MAX @ 0.10 Vrms	≤ 1.20 Ω	≤ 1.00 Ω
ST-S1020	THT	RS8973	272 to 2320 Kpbs	2CS:1	2.0 mH ±6%	6.5 µH MAX @ 0.02 Vrms	≤ 2.00 Ω	≤ 1.10 Ω
ST-S1040	SMT	RS8973	272 to 2320 Kpbs	2CS:1	2.0 mH ±10%	6.5 µH MAX @ 0.02 Vrms	≤ 1.60 Ω	≤ 1.05 Ω
ST-S1075	THT	RS8973	272 to 2320 Kpbs	2CS:1CT	2.0 mH ±6%	8 µH MAX @ 0.02 Vrms	≤ 2.00 Ω	≤ 0.70 Ω
ST-S1077	SMT	RS8973	272 to 2320 Kpbs	2CS:1CT	2.0 mH ±8%	8 µH MAX @ 0.02 Vrms	≤ 2.00 Ω	≤ 0.70 Ω

### Additional Electrical Specifications

Part Number	Longitudinal Balance (dB)	THD @ 135 Ω (dB)	Insertion Loss @ 135 Ω (dB)	Return Loss @ 135 Ω (dB)	Isolation Voltage (Vrms @ 60 sec)	Schematics
ST-S1017	≤ -53 (40 kHz to 200 kHz)	≤ -70 (10 kHz, 5.0 Vrms)	≤ 0.40 (26 kHz to 200 kHz)	≥ 19 (40 kHz to 200 kHz)	1500	A
ST-S1059	≤ -53 (40 kHz to 200 kHz)	≤ -70 (10 kHz, 5.0 Vrms)	≤ 0.40 (26 kHz to 200 kHz)	≥ 19 (40 kHz to 200 kHz)	1500	A
ST-S1018	≤ -53 (30 kHz to 300 kHz)	≤ -70 (40 kHz, 1.85 Vrms)	≤ 0.50 (40 kHz)	≥ 16 (40 kHz to 300 kHz)	1500	B
ST-S1028	≤ -50 (40 kHz to 300 kHz)	≤ -70 (20 kHz, 4.5 Vrms)	(Data not available)	≥ 16.5 (40 kHz to 300 kHz)	1500	B
ST-S1020	≤ -50 (30 kHz to 300 kHz)	≤ -70 (10 kHz, 5.0 Vrms)	≤ 0.65 (30 kHz to 580 kHz)	≥ 16 (40 kHz to 300 kHz)	1500	A
ST-S1040	≤ -50 (30 kHz to 420 kHz)	≤ -70 (10 kHz, 5.0 Vrms)	≤ 0.60 (30 kHz to 580 kHz)	≥ 16 (40 kHz to 300 kHz)	1500	A
ST-S1075	≤ -50 (30 kHz to 300 kHz)	≤ -70 (10 kHz, 5.0 Vrms)	≤ 0.50 (30 kHz to 580 kHz)	≥ 16 (40 kHz to 300 kHz)	1500	B
ST-S1077	≤ -50 (30 kHz to 300 kHz)	≤ -70 (10 kHz, 5.0 Vrms)	≤ 0.60 (30 kHz to 580 kHz)	≥ 16 (40 kHz to 300 kHz)	1500	B

## ● For use with Level One chipsets

Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

Part Number	Matched To Level One IC Numbers	Application (Kbps)	Turns Ratio Chip-Line (± 2%)	Inductance Line Side (10-7)(w/6-9 shorted)	Leakage Inductance (10-7)(w/6-9,1-4, 2-5 shorted)	Hipot (Vrms MIN)
ST-S1013	SK70704/06 & SK70721/25	784	1CTS:1.8CTS	3.00 mH ± 10%	30 µH MAX	2000

### Additional Information

Part Number	DCR Line Side (10-6)=(9-7)	DCR Chip Side (1-5)(w/2-4 shorted)	Return Loss (40-200 kHz)	Longitudinal Balance (dB MIN @ 135 Ω)	THD (dB TYP @ 135 Ω)	Schematics
ST-S1013	1.5 Ω (MAX)	2.3 Ω (MAX)	16.5 dB MIN	50 @ 5-196 kHz	-75 (5 kHz, 6 V p-p)	C

## Mechanicals

## Schematics

THT

SMT

