



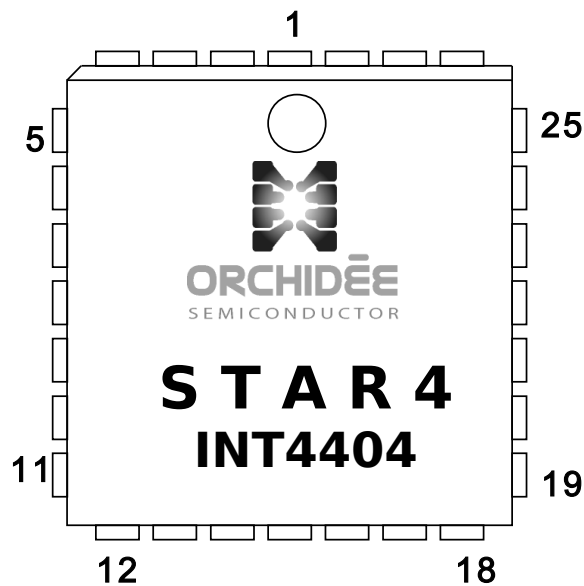
## Orchidée Semiconductor 4-Port DASL Interface Transceiver

### Features

- Pin-for-Pin replacement for industry-standard TP3404 (QDASL™) component
- Up to 2.0km (0.4mm) line interface performance
- MICROWIRE™ compatible serial bus interface
- Low Power dynamic operation
- Single 5V supply
- 28-pin PLCC (Green, Pb-free) package

### Description

The Orchidée Semiconductor INT4404 is a fully featured replacement for the industry standard 4-port DASL™ interface layer-1 device. It supports loop lengths up to 2.0km over AWG26 cable and provides all signal conditioning, equalization and adaptive threshold adjustment to optimize line performance.



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## ELECTRICAL CHARACTERISTICS

### Absolute Maximum Ratings ( $V_{SS} = 0V$ , $T_J = 25^{\circ}C$ )

Parameter	Symbol	Rated Values	Unit
Power Supply Voltage	$V_{DD}$	-0.3 to +7.0	V
Input Voltage	$V_I$	-0.3 to +7.0	
Output Voltage	$V_O$	-0.3 to VDD	
Input Current	$I_I$	-10 to +10	mA
Output Current per I/O	$I_O$	-10 to +10	
Storage Temperature	$T_{STG}$	-65 to +150	$^{\circ}C$

### Recommended Operating Conditions ( $V_{SS} = 0V$ )

Parameter	Symbol	Rated Values	Unit
Power Supply Voltage	$V_{DD}$	+4.75 to +5.25	V
Junction Temperature	$T_J$	-40 to +100	$^{\circ}C$

### DC Characteristics (Over Operating Range)

Parameter	Symbol	Conditions	Rated Values			Unit
			Min.	Typ.	Max.	
High Level Input Voltage	$V_{IH}$		2.0	-	$V_{DD}$	V
Low Level Input Voltage	$V_{IL}$		0.0	-	0.8	
High Level Output Voltage	$V_{OH}$	$I_{OH} = TBD$	2.4	-	-	
Low Level Output Voltage	$V_{OL}$	$I_{OL} = TBD$	-	-	0.4	
High Level Input Current	$I_I$	$V_{IH} = V_{DD}$	-	-	10	uA
Low Level Input Current	$I_O$	$V_{IL} = V_{SS}$	-10	-	-	
3-State Output Leakage Current	$I_{OZH}$		-10	-	10	
	$I_{OZL}$		-10	-	10	
Stand-by Current	$I_{DDQ}$	$V_{IH} = V_{DD}$ , $V_{IL} = V_{SS}$		TBD		

## Pin Descriptions

Pin	Signal	Type	Description
1	GNDA	Supply	Analog Ground
2	LI1	Analog	Line Interface
3	LO1	Analog	Line Interface
4	LO0	Analog	Line Interface
5	LI0	Analog	Line Interface
6	N.C.		
7	DI	Input	TDM D-channel data
8	DO	Output	TDM D-channel data
9	MCLK	Input	Master 4.096MHz clock input
10	BCLK	Input	Bit clock input for TDM bus
11	FS	Input	TDM Frame Sync signal
12	BI	Input	TDM B-channel data
13	BO	Output	TDM B-channel data
14	TSB	Output	TDM B-channel valid signal
15	GNDD	Supply	Digital Ground
16	VDDD	Supply	Digital Power, +5V
17	INTB	Output	Interrupt output
18	CSB	Input	MICROWIRE™ interface pin
19	CCLK	Input	MICROWIRE™ interface pin
20	CO	Output	MICROWIRE™ interface pin
21	CI	Input	MICROWIRE™ interface pin
22	N.C.		
23	N.C.		
24	LI3	Analog	Line Interface
25	LO3	Analog	Line Interface
26	LO2	Analog	Line Interface
27	LI2	Analog	Line Interface
28	VDDA	Supply	Analog Power, +5.0V

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