

FEATURES	APPLICATIONS
<ul style="list-style-type: none"> 5 Dual ± 5 Volt Supply 5 10 GHz Bandwidth 5 Good Sensitivity at High Bit Rates 5 Low Distortion 	<ul style="list-style-type: none"> 5 SONET OC-192/SDH STM-64 Receiver 5 Wideband Gain Block 5 Low Noise RF Amplifier

ELECTRICAL SPECIFICATIONS ($T_A = 25^\circ\text{C}$, $V_{DD} = +5\text{ V}$, $V_{SS} = -5\text{ V}$, $C_{DIODE} + C_{STRAY} = 0.2\text{ pF}$)

DC CHARACTERISTICS	MIN	TYP	MAX	UNIT
Transresistance ($R_L = \infty$)		650		Ω
Input Resistance		200		Ω
Output Resistance		50		Ω
Supply Current I_{DD}	50	60	70	mA
I_{SS}		30	35	mA
Output Drive Current Source/Sink ¹		4		mA
Output Offset Voltage		0.5		V
Input Offset Voltage	-0.3	-0.4		V
Operating Temperature Range	0		+85	$^\circ\text{C}$
Operating Voltage Range V_{DD}	4.5	5.0	7.0	V
V_{SS}	-6	-5	-3.5	V

AC CHARACTERISTICS	MIN	TYP	MAX	UNIT
Transresistance $f = 300\text{ MHz}$ $R_L = 50$		450		Ω
3 dB Bandwidth	7	10		GHz
Optical Sensitivity		-20		dBm
Output Return Loss			14	dB
Gain Flatness (150 KHz - 500 MHz)		± 0.5	± 1	dB
Peaking (Relative to 100 MHz)		1.5	2.5	dB

¹ CAUTION: Output is not short circuit protected.

This Advanced Product Information sheet contains technical information about product ANADIGICS is planning to introduce. The data and product specifications are subject to change prior to formal introduction. Please note : This device is not to be used for device qualification or production.

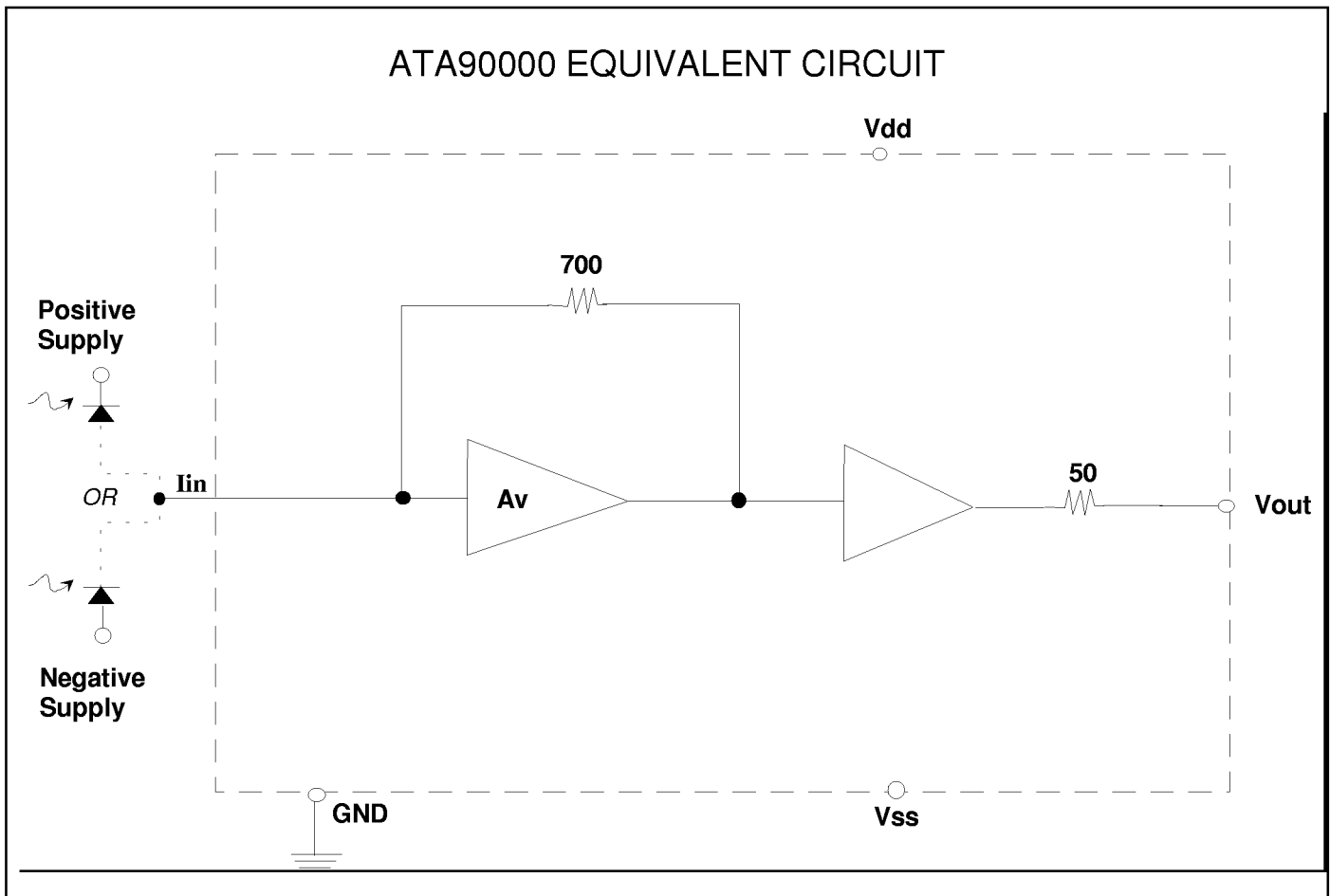
ABSOLUTE MAXIMUM RATINGS

V_{DD}	7.5V
V_{SS}	- 7.5V
T_a	Operating Temp. - 40°C to 125°C
T_s	Storage Temp. - 65°C to 150°C

ATA90000 PAD DESCRIPTION

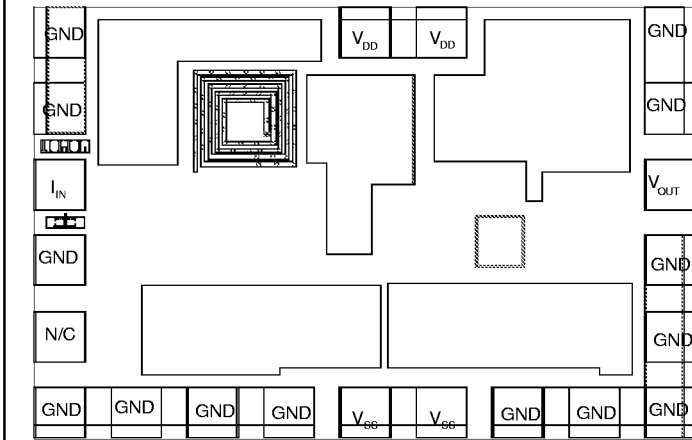
PAD	DESCRIPTION	COMMENT
V_{DD}	Positive Supply Voltage	
V_{SS}	Negative Supply Voltage	
I_{IN}	TIA Input Current	
V_{out}	TIA Output Voltage	Requires External DC Block

ATA90000 EQUIVALENT CIRCUIT

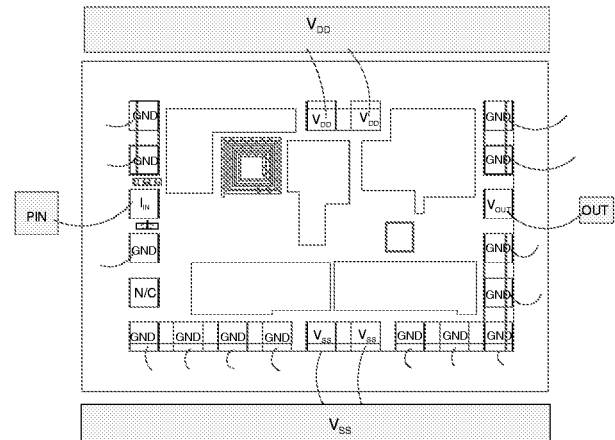


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ATA90000 BOND PAD LAYOUT



ATA90000 TYPICAL BONDING DIAGRAM



PAD	FUNCTION
I _{IN}	Photodiode Input
V _{OUT}	TIA Output
V _{DD}	Positive Power Supply
V _{SS}	Negative Power Supply
N/C	No Connection
GND	Ground

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