Product Specification Sheet

AT&T Microelectronics

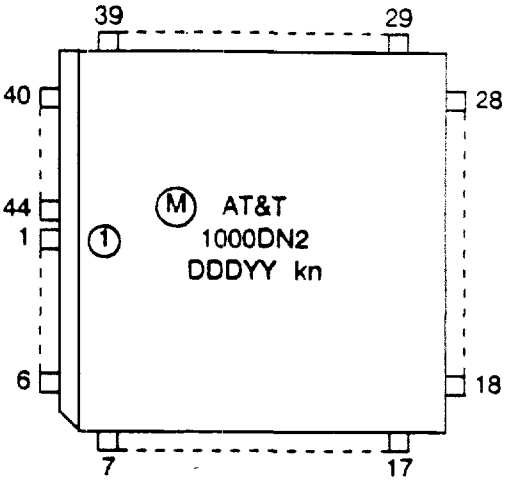
Initial Use

ASSET (Echo Cancellor Chip Set)

1000DN2
Echo Cancellor

Description

The 1000DN2 is a third generation Echo Canceller data convolution device that implements the adaptive echo canceller filtering algorithem. The 1000DN2 directly replaces the 1000DN and may also be used with a dual power supply (3 V, 5 V) to reduce power consumption.



Package Outline
44-pin PLCC (0.050" pitch)
Dimensions per 3ZPF04402

Characteristics

Absolute Maximum Ratings	
Power Supply Voltage	$V_{DD} - V_{SS} = 7.0$ V
Input Voltage	V_{SS} to V_{DD} (for $V_{DD} - V_{SS} > 6.1$ V)
Storage Temperature	−40 °C to +125 °C
Recommended Maximum Operating Conditions	
Power Supply Voltage	$V_{DD} - V_{SS} = 5.5$ V
Input Voltage	(V_{SS} − 0.3 V) to (V_{DD} + 0.3 V)
Operating Temperature	0 °C to +85 °C
ESD Threshold (Highest Passing Voltage)	
Human Body Model	>2000 V all pins
Charged Device Model	>500 V all pins, >1000 V cor. pins
General Characteristics	
I/O Levels	TTL and/or CMOS Compatible
Technology	0.9 CMOS
Power Supply	5 V ± 10%, 3V ± 5%
Package	Plastic Chip Carrier
Max. Power Dissipation:	
5 V supply	200 mW
3 V & 5 V supplies	100 mW

For additional information, contact your AT&T Account Manager or the following:

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Pin Identification

Pkg Pin	Type	Signal Name	Pkg Pin	Type	Signal Name
1	VSS	VSS.M1	23	OUT-TTL-TS	CIN2
2	IN-TTL-PU	CHANSTE3	24	OUT-TTL-TS	CIN3
3	IN-TTL-PU	CHANSTE2	25	OUT-TTL-TS	CIN4
4	IN-TTL-PU	CHANSTE1	26	VSS	VSS.M1
5	IN-TTL-PU	CHANSTE0	27	OUT-TTL-TS	CIN5
6	IN-TTL	XFILL	28	VDD	VDD[3,5]
7	IN-TTL	COUT7	29	OUT-TTL-TS	CIN6
8	IN-TTL	COUT6	30	OUT-TTL-TS	CIN7
9	IN-TTL	COUT5	31	VSS	VSS.M1
10	IN-TTL	COUT4	32	OUT-TTL-TS	CIN8
11	IN-TTL	COUT3	33	OUT-TTL-TS	CHKOK
12	VDD	VDD5	34	IN-TTL	SYNCCLK
13	IN-TTL	COUT2	35	IN-TTL	CK8
14	IN-TTL	COUT1	36	VSS	VSS.M1
15	IN-TTL	COUT0	37	OUT-TTL-TS	TGS0
16	IN-TTL	CCSYNC	38	OUT-TTL-TS	HOUT
17	IN-TTL	HFRCLO	39	OUT-TTL-TS	ENDOUT
18	IN-TTL	HFRCHI	40	VDD	VDD[3,5]
19	VSS	VSS.M1	41	IN-TTL	POWON
20	OUT-TTL-TS	CIN0	42	IN-TTL-PU	OUTCTRL
21	VSS	VSS.M1	43	IN-TTL-PU	FRSLIP
22	OUT-TTL-TS	CIN1	44	IN-TTL-PU	CHANSTE4

Terminology

IN — Input pin	SCH — Schmitt Trigger Input
OUT — Output pin	OPEN — Unused in this application
I/O — Bidirectional pin	PU — Pull-up resistor on pin
VDD[3,5] — Power pin (3.3,5 V nominal)	PD — Pull-down resistor on pin
VSS — Ground pin	TS — 3-state output
TTL — Logic levels (0.4 V and 2.4 V nominal)	OD — Open-drain output
MOS — Logic levels (0.5 V and 4.5 V nominal)	