

SONY.**CXB111Q/Q-Y**

T-45-07

4-bit Look-Ahead Carry Generator**Description**

The CXB111Q is an ultra high speed monolithic ECL 4bit Look-Ahead Carry Generator.

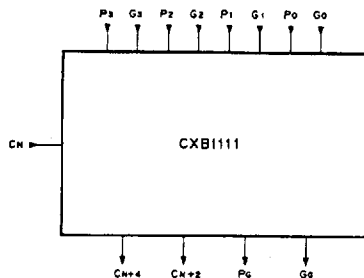
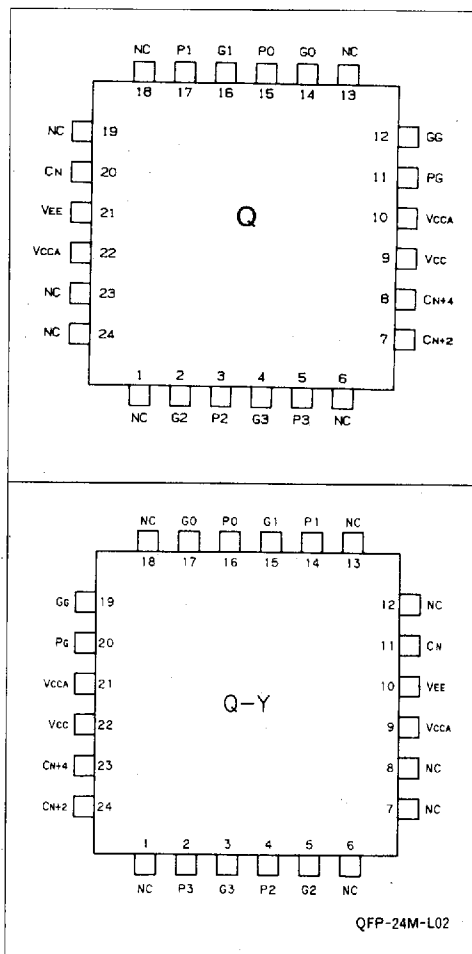
When used with the CXB1138Q (4-bit ALU), this IC functions as an ultra fast second order or higher look ahead.

Features

- Typical AC characteristics: $T_{pd} = 700ps$
- Internal pull down resistors on input pins to maintain logic LOW level with the pins left open
- ECL 100K compatible I/O levels

Pin Names

CN	Carry input
Pn	Carry Propagate inputs
Gn	Carry Generate inputs
CN+2, CN+4	Carry outputs
Pg	Group carry Propagate output
Gg	Group carry Generate output
VCC	Circuit ground
VCCA	Circuit ground for outputs
VEE	Negative power supply

Logic Symbol**Pin Assignment**

SONY

CXB1111Q/QY

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DC Characteristics

 $V_{EE} = -4.5 \pm 0.3V$, $V_{CC} = V_{CCA} = GND$, $V_{TT} = -2.0V$, $T_c = 0^\circ C$ to $+85^\circ C$

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Power supply current	I_{EE}		-170	-125	-87	mA

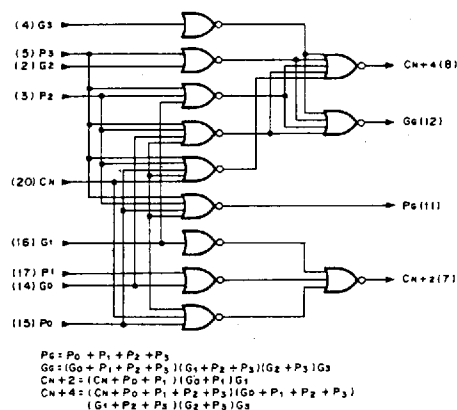
Note: Other DC characteristics; See pages 3-3 and 3-4.

AC Characteristics

 $V_{EE} = -4.5 \pm 0.3V$, $V_{CC} = V_{CCA} = GND$, $V_{TT} = -2.0V$, $T_c = 0^\circ C$ to $+85^\circ C$, $R_T = 50\Omega$ to V_{TT}

Item	Symbol	Input	Output	Test Condition	Min.	Typ.	Max.	Unit
Propagation delay time	T _{PLH}	P ₃	C _{N+4}		520	690	880	ps
	T _{PHL}				480	640	810	
	T _{PLH}	P ₁	C _{N+2}		530	700	890	
	T _{PHL}				530	680	850	
	T _{PLH}		G _G		530	700	890	
	T _{PHL}				530	680	850	
	T _{PLH}		P _G		480	650	840	
	T _{PHL}				480	640	810	
Rise time	T _{TLH}	All Inputs	All Outputs	20% to 80%		310	390	
Fall time	T _{THL}					210	270	

Note: AC test circuit; See page 4-3.



Package Data

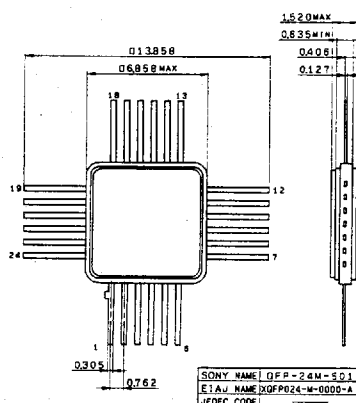
T-90-20

Package Outline

Unit: mm

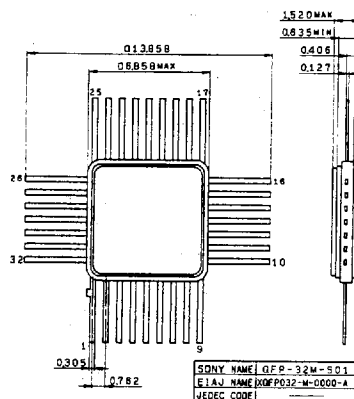
24pin QFP (QFP-24M-S01)

24pin QFP (Metal) 0.3g



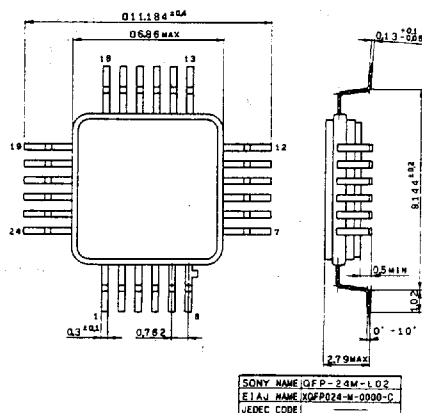
32pin QFP (QFP-32M-S01)

32pin QFP (Metal) 0.2g



24pin QFP (QFP-24M-L02)

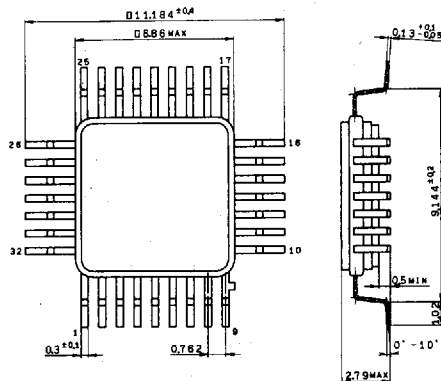
24pin QFP (Metal) 0.3g



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32pin QFP (QFP-32M-L02)

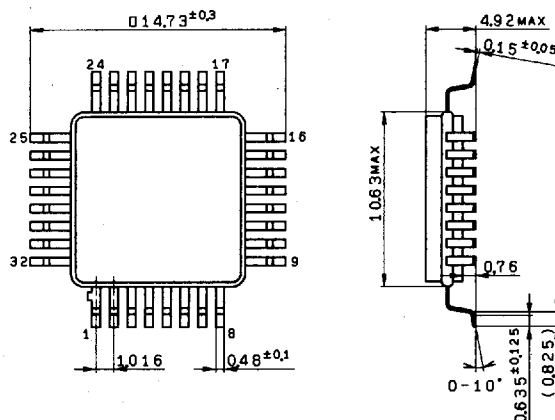
32pin QFP (Metal) 0.2g



SONY NAME	QFP-32M-L02
EIAJ NAME	XQFP032-M-0000-C
JEDEC CODE	

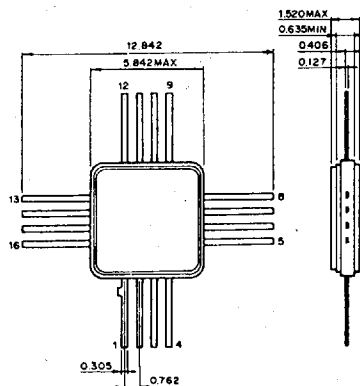
32pin QFP (QFP-32C-L01)

32pin QFP (Ceramic)



SONY NAME	QFP-32C-L01
EIAJ NAME	XQFP032-G-0000-A
JEDEC CODE	

16pin QFP



Package Data

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2. 24 pin QFP	6-3
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4. 24 pin QFP with formed lead	6-4
5. 32 pin QFP with formed lead	6-4

Package Data

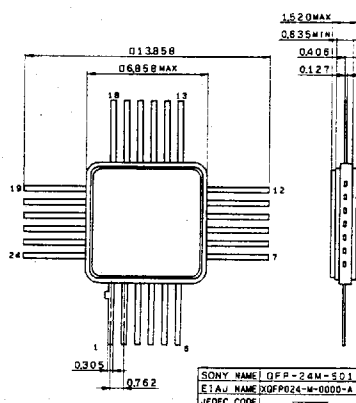
T-90-20

Package Outline

Unit: mm

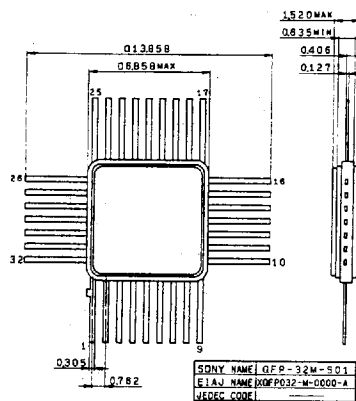
24pin QFP (QFP-24M-S01)

24pin QFP (Metal) 0.3g



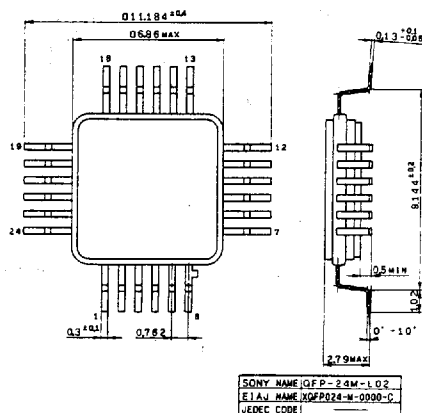
32pin QFP (QFP-32M-S01)

32pin QFP (Metal) 0.2g



24pin QFP (QFP-24M-L02)

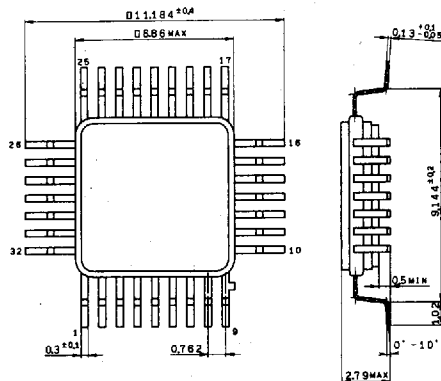
24pin QFP (Metal) 0.3g



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32pin QFP (QFP-32M-L02)

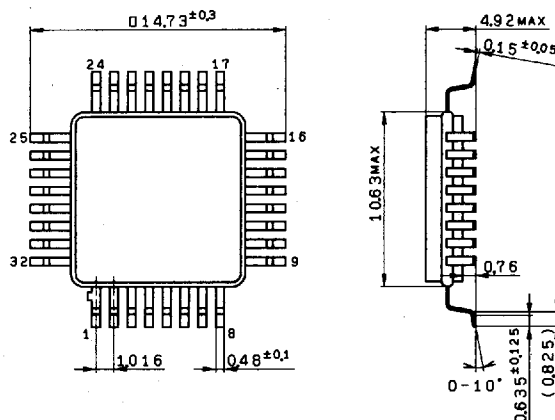
32pin QFP (Metal) 0.2g



SONY NAME	QFP-32M-L02
EIAJ NAME	XQFP032-M-0000-C
JEDEC CODE	

32pin QFP (QFP-32C-L01)

32pin QFP (Ceramic)



SONY NAME	QFP-32C-L01
EIAJ NAME	XQFP032-G-0000-A
JEDEC CODE	

16pin QFP

