

LCD Driver Technical Selection Guide

Part Number	MC14LC5003/4	MC141511A	MC141512	MC141514	MC141515	MC141519
Type	Passive	Passive	Passive	Passive	Passive	Passive
Backplane/Common/Row	4	-	80	-	160	-
Segment/Column	32	128	-	160	-	160
MUX Ratio / Duty	1/4	1/32 or 1/41	1/32-1/146	1/32-1/146	1/32-1/146	1/32-1/80
Operating Voltage for internal circuit VDD (V)	3 or 5	3 or 5	3 or 5	5	5	3 or 5
Voltage for LCD drive circuit VLCD (V)	5	12	25	25	25	16
Typical current consumption						
IDD	Display	30uA	25uA	1uA	50uA	2uA
	Standby	30uA	15uA	0.5uA	1uA	1uA
ILCD	Display	40uA	20uA	3uA	10uA	6uA
RAM size	32 x 4	656 x 8	-	146 x 160	-	80 x 160
Package	QFP , Die	TAB , Die	TAB , Die	TAB , Die	TAB	TAB
Target CPU	General	MC68HC05L10	MC68HC05L11	MC68HC05L11	MC68HC05L11	MC68HC05L11
Special Features	Serial Interface or IIC Bus					

Part Number	MC141516	MC141518	MC141522	MC141524	MC141562	MC141563
Type	Passive	Passive	Active	Active	Passive	Passive
Backplane/Common/Row	64	-	120	-	100	-
Segment/Column	-	80	-	120	-	80
MUX Ratio / Duty	1/32 - 1/64	1/32 - 1/64	N/A	N/A	1/100 - 1/300	1/100 - 1/300
Operating Voltage for internal circuit VDD (V)	3 or 5	3 or 5	5	5	3 or 5	3 or 5
Voltage for LCD drive circuit VLCD (V)	13	13	45	15	28	28
Typical current consumption						
IDD	Display	5uA	20uA	100uA	10mA	40uA
	Standby	2uA	5uA	N/A	N/A	300nA
ILCD	Display	8uA	30uA	N/A	N/A	30uA
RAM size	-	64 x 80	-	-	-	-
Package	TQFP, Die	TQFP, Die	TAB	TAB	TAB, Die	TAB, Die
Target CPU	MC68HC05L11	MC68HC05L11	-	-	-	-
Special Features	4bit / 8bit interface					

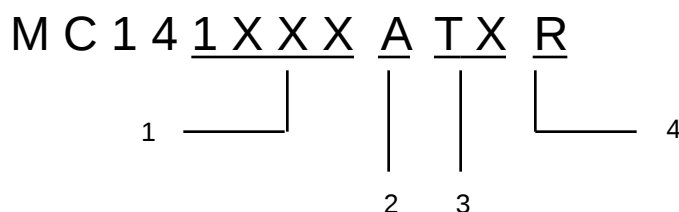
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Part Number	MC141531	MC141535	MC141532/33	MC141537	MC141539
Type	Passive	Passive	Passive	Passive	Passive
Backplane/Common/Row	17	17	33	16	32
Segment/Column	120	161	120	120	120
MUX Ratio / Duty	1/16, 1/17	1/17	1/16, 1/17, 1/32, 1/33	1/16	1/16 or 1/32
Operating Voltage for internal circuit VDD (V)	2.4 - 3.5	2.4 - 3.5	2.4 - 3.5	2.4 - 3.5	2.4 - 3.5
Voltage for LCD drive circuit VLCD (V)	10.5	10.5	10.5	10.5	10.5
Typical current consumption					
IDDD	Display	75uA	70uA	80uA	70uA
	Standby	300nA	300nA	300nA	300nA
ILCD	Display	6uA	6uA	6uA	6uA
RAM size	17 x 120	17 x 161	33 x 120	16 x 120	32 x 120
Package	TAB, Au Bump Die	TAB, Au Bump Die	TAB, Au Bump Die	TAB, Bare Die	TAB
Target CPU	General	General	General	General	General
Special Features	3 annunciators	4 annunciators	4 annunciators	3 annunciators	4 annunciators
	On chip DC-DC	On chip DC-DC	On chip DC-DC	On chip DC-DC	On chip DC-DC
	Temp. Compensation	Temp. Compensation	Temp. Compensation	Temp. Compensation	Temp. Compensation
	Contrast control	Contrast control	Contrast control	Contrast control	Contrast control
	Low Power Icon	Horizontal Scrolling	Low Power Icon		

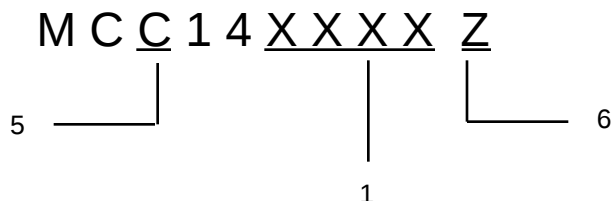
Part Number	MC141800A
Type	Passive
Backplane/Common/Row	65
Segment/Column	128
MUX Ratio / Duty	Direct to 1/65
Operating Voltage for internal circuit VDD (V)	2.4 - 3.5
Voltage for LCD drive circuit VLCD (V)	16.5
Typical current consumption	
IDD	Display TBD
	Standby TBD
ILCD	Display TBD
RAM size	65 x 128
Package	TAB, Au Bump Die
Target CPU	General
Special Features	IIC, parallel interface
	On chip DC-DC
	Temp. Compensation
	Contrast control
	Low Power Icon

Ordering Part Number

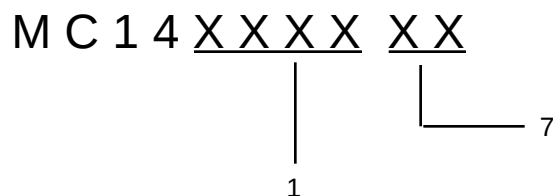
TAB Package



Die



Other Packages



Item	Definition	Representation	Sequence	Note
1	Four digits numeric number	One particular display IC	1500 - 1599 1800 - 1899 5000 - 5009	
2	One digit alphabet	Derivative of a particular IC corresponding to the number defined in item 1	Alphabet order	Only for derivatives, no such digit for original design
3	One digit "T" followed by one digit numeric number	Device in TAB package	T, T1, T2...	No T0 exist
4	One digit "R"	Reel size	With / without "R"	With "R" - 405mm reel diameter Without "R" - 330mm reel diameter
5	One digit "C" or "W"	Device in die form	"C" or "W"	"C" - Die shipped in chip carrier "W"- Die shipped in wafer form
6	One digit "Z"	Device sold in Au bump die / bare die form	With / without "Z"	With "Z" - Au bump die Without "Z" - bare die
7	One or Two digit	Package form	"P" or "DW" or "FU" or "FJ"	"P" - Plastic Dual in-Line package "DW" - Small Outline Gull-Wing Package "FU" - Qual Flat Package "FJ" - Thin Qual Flat Package