

**TX03 Series**

**32-bit / 100/109-pin**

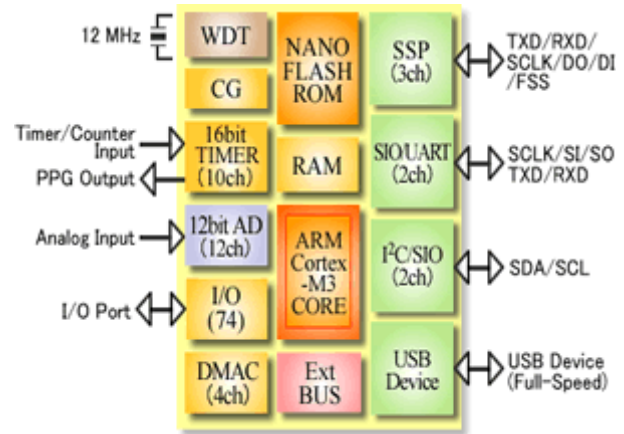
<b>NEW</b>	<b>TMPM366FDFG</b>	Under Development	<b>TMPM366FDXBG</b>	
<b>NEW</b>	<b>TMPM366FYFG</b>	Under Development	<b>TMPM366FYXBG</b>	
<b>NEW</b>	<b>TMPM366FWFG</b>	Under Development	<b>TMPM366FWXBG</b>	

**Microcontrollers with a full-speed USB device achieve the optimal balance between the cost and performance.**

**Features**

**ARM Cortex™-M3 CPU Core**

- ▶ Operating voltage:  
2.7 to 3.6V (3.0 to 3.6V USB)  
I/O 2.7 to 3.6V
- ▶ Maximum Operating frequency:  
48 MHz
- ▶ On-chip debug circuit:  
JTAG, SWD, SWV or 4-bit trace interface
- ▶ Power saving operation  
Clock gear (for dividing clock to 1/2, 1/4, or 1/8)  
Standby modes (IDLE, STOP1, STOP2)



**Built-in Functions**

- ▶ DMA controller : 4 channels
- ▶ USB (Full-Speed) device controller : 1 channel
- ▶ I/O ports : 74 pins
- ▶ 12-bit AD converter : 12 channels
- ▶ 16-bit timer : 10 channels
- ▶ Full UART : 1 channel
- ▶ SIO/UART : 2 channels
- ▶ I<sup>2</sup>C/SIO : 2 channels
- ▶ SSP : 3 channels
- ▶ External bus interface : 8/16-bit (Multiplex bus/Separate bus)

**Flash Memory Size**

Part number	ROM (Flash)	RAM
TMPM366FDFG	512 Kbytes	64 Kbytes
TMPM366FDXBG**	512 Kbytes	64 Kbytes
TMPM366FYFG	256 Kbytes	48 Kbytes
TMPM366FYXBG**	256 Kbytes	48 Kbytes
TMPM366FWFG	128 Kbytes	32 Kbytes
TMPM366FWXBG**	128 Kbytes	32 Kbytes

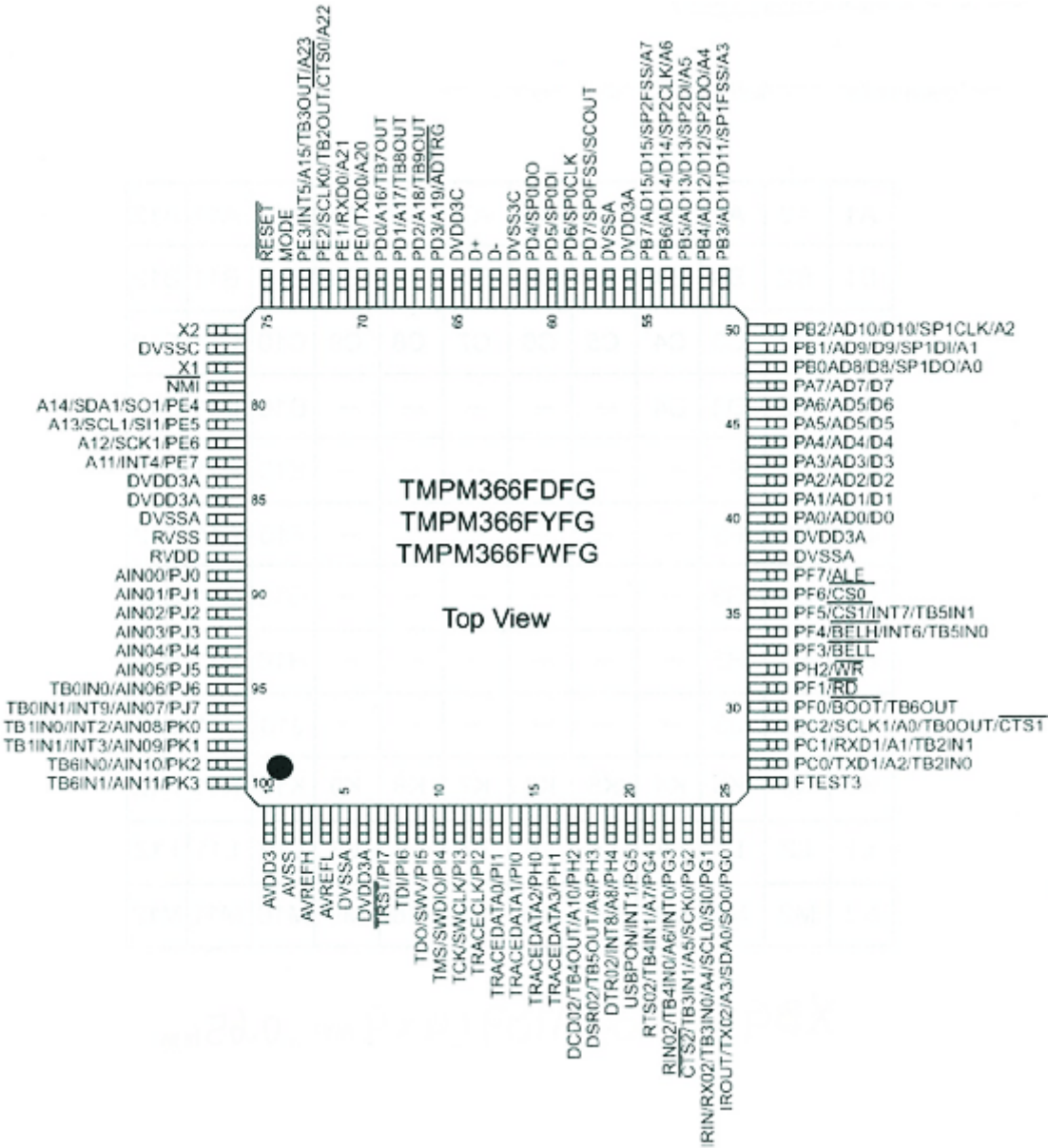
\*\* : Under development

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# Package Information

## Pin Assignments



Package FG: LQFP100 (14 × 14 mm)

A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
D1	D2	D3	D4	—	—	—	—	—	D10	D11	D12
E1	E2	E3	—	—	—	—	—	—	E10	E11	E12
F1	F2	F3	—	—	—	—	—	—	F10	F11	F12
G1	G2	G3	—	—	—	—	—	—	G10	G11	G12
H1	H2	H3	—	—	—	—	—	—	H10	H11	H12
J1	J2	J3	—	—	—	—	—	—	J10	J11	J12
K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12
L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12
M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12

**Top View**

**Package XBG: TFBGA109 (9 × 9 mm)**

## Pin Numbers and Names (XBG)

Pin No.	Pin Name	Pin No.	Pin Name
A1	PK3/AIN11/TB6IN1	D1	AVSS
A2	PJ7/AIN07/INT9/TB0IN1	D2	PK0/AIN08/INT2/TB1IN0
A3	PJ3/AIN03	D3	PJ6/AIN06/TB0IN0
A4	PJ0/AIN00	D4	AVSS
A5	RVDD3	D5	-
A6	RVSS	D6	-
A7	DVSSA	D7	-
A8	DVDD3A	D8	-
A9	X1	D9	-
A10	DVSSC	D10	PD3/A19/ADTRG
A11	X2	D11	PE0/TXD0/A20
A12	DVSSC	D12	PE1/RXD0/A21
B1	AVDD3	E1	AVREFL
B2	PK2/AIN10/TB6IN0	E2	AVSS
B3	PJ4/AIN04	E3	BSC
B4	PJ1/AIN01	E4	-
B5	AVSS	E5	-
B6	PE7/INT4/A11	E6	-
B7	PE5/SCL1/S11/A13	E7	-
B8	DVDD3A	E8	-
B9	NMI	E9	-
B10	DVSSC	E10	PD4/SP0D0
B11	MODE	E11	DVDD3C
B12	RESET	E12	DVDD3C
C1	AVREFH	F1	DVDD3A
C2	PK1/AIN09/INT3/TB1IN1	F2	DVSSA
C3	PJ5/AIN05	F3	PI7/TRST
C4	PJ2/AIN02	F4	-
C5	AVSS	F5	-
C6	PE6/SCK1/A12	F6	-
C7	PE4/SDA1/SD1/A14	F7	-
C8	PD0/A16/TB7OUT	F8	-
C9	PD1/A17/TB8OUT	F9	-
C10	PD2/A18/TB9OUT	F10	PD5/SP0D1
C11	PE2/SCLK0/TB2OUT/CTS0/A22	F11	DVSS3C
C12	PE3/INT5/A15/TB3OUT/A23	F12	D+

Pin No.	Pin Name	Pin No.	Pin Name
G1	PI2/TRACECLK	K1	PH4/A8/INT8/DTR02
G2	PI6/TDI	K2	PH3/A9/TB5OUT/DSR02
G3	PI5/TDO/SWV	K3	PH2/A10/TB4OUT/DGD02
G4	-	K4	PG5/INT1/USBPON
G5	-	K5	PC2/SCLK1/A0/TB0OUT/CTS1
G6	-	K6	PF2/WR
G7	-	K7	PF5/CS1/INT7/TB5INI
G8	-	K8	PF7/ALE
G9	-	K9	PA1/D1/AD1
G10	PD6/SPOCLK	K10	PA4/D4/AD4
G11	DVSS3C	K11	PB2/D10/AD10/SP1CLK/A2
G12	D-	K12	PB4/D12/AD12/SP2DO/A4
H1	PI0/TRACEDATA1	L1	PG2/SCK0/A5/TB3INI/CTS2
H2	PI1/TRACEDATA0	L2	PG3/INT0/A6/TB4INO/RIN02
H3	PI4/TMS/SWDIO	L3	PG4/A7/TB4INI/RTS02
H4	-	L4	PC0/TXD1/A2/TB2INO
H5	-	L5	PF1/RD
H6	-	L6	PF3/BELL
H7	-	L7	PF6/CS0
H8	-	L8	PA0/D0/AD0
H9	-	L9	PA2/D2/AD2
H10	PD7/SPOFSS/SCOUT	L10	PA5/D5/AD5
H11	DVSSA	L11	PB0/D8/AD8/SP1DO/A0
H12	DVDD3A	L12	PB3/D11/AD11/SP1FSS/A3
J1	PH0/TRACEDATA2	M1	FTEST3
J2	PH1/TRACEDATA3	M2	PG1/SCL0/SI0/A4/TB3INO/RX02/IRIN
J3	PI3/TCK/SWCLK	M3	PG0/SDA0/S00/A3/TX02/IROUT
J4	-	M4	PC1/RXD1/A1/TB2INI
J5	-	M5	PF0/BOOT/TB6OUT
J6	-	M6	PF4/BELH/INT6/TB5INO
J7	-	M7	DVSSA
J8	-	M8	DVDD3A
J9	-	M9	PA3/D3/AD3
J10	PB7/D15/AD15/SP2FSS/A7	M10	PA6/D6/AD6
J11	PB6/D14/AD14/SP2CLK/A6	M11	PA7/D7/AD7
J12	PB5/D13/AD13/SP2DI/A5	M12	PB1/D9/AD9/SP1DI/A1

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