

**TX04 Series**

32bit/176pins,144pins

Under Development **TMPM461F15FG** Under Development **TMPM461F10FG**  
Under Development **TMPM462F15FG** Under Development **TMPM462F10FG**

**Microcontrollers are best suited to applications such as printers, AV systems and industrial equipment.**

**Features**

- ▶ High performance ARM® Cortex®-M4F core, max. 120MHz operation
- ▶ Large-capacity, on-chip 1.5MB Flash for large scale software
- ▶ Equipped wide variety of serial channels (max. 20 channels)

**Application**

Printer, AV receiver, digital products, PC peripheral products, Industrial applications

**Description**

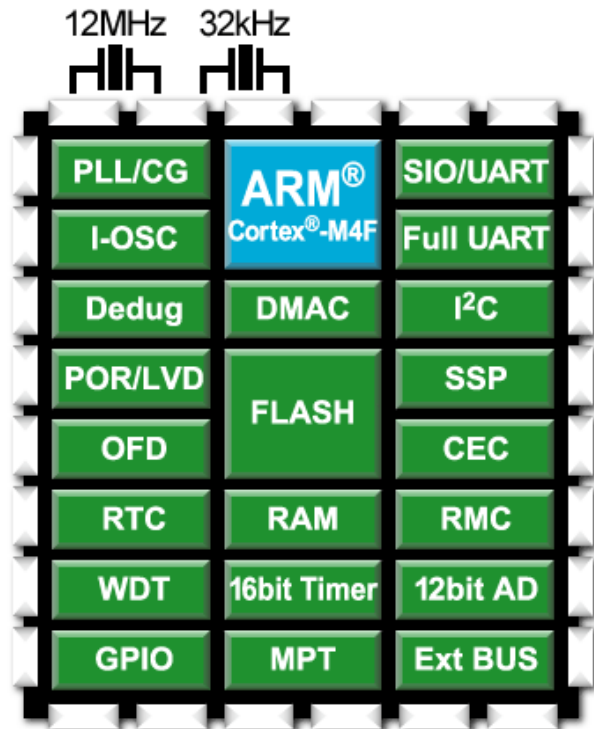
**ARM® Cortex®-M4F CPU Core**



- ▶ Operation voltage : 2.7~3.6V(Single power supply)
- ▶ Max. operating frequency : 120MHz
- ▶ Debug I/F : JTAG/SWD/SWV w/ 4-bit trace
- ▶ Power saving operation :  
Clock gear function : Available  
Standby mode (IDLE/STOP1/STOP2)

**Built-in Functions**

- ▶ 12-bit AD converter : 20 channels
- ▶ DMA controller : 32 channels (3units)
- ▶ 16-bit timer : 16 channels
- ▶ Multi-purpose timer : 2 channels (IGBT control /16 bit timer)
- ▶ Serial interface :  
Full UART 2 channels  
UART/SIO 6 channels(TMPM461),  
10 channels(TMPM462)  
I²C (100kHz,400kHz) 5 channels  
SSP (SPI/SSI/Microwire) 3 channels
- ▶ CEC : 1 channel
- ▶ Remote controller(RMC) : 1 channel(TMPM461),  
2 channels(TMPM462)
- ▶ External bus I/F : 8/16bit (Multiplex/Separate)
- ▶ External interrupt : 17 channels (including NMI)
- ▶ RTC : 1 channel
- ▶ WDT : 1 channel
- ▶ Build-in high speed oscillation circuit
- ▶ Low voltage detector (LVD) and Power-on reset (POR)



**Package/Memory Variation**

Part number	ROM (Flash)	RAM	Package
TMPM461F15FG**	1.5 MB	193KB	LQFP144 (20×20mm, 0.5mm pitch)
TMPM461F10FG**	1.0 MB		
TMPM462F15FG**	1.5 MB		LQFP176 (20×20mm, 0.4mm pitch)
TMPM462F10FG**	1.0 MB		

\*\* : Under development

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