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### What is "[Embedded - Microcontrollers](#)"?

"[Embedded - Microcontrollers](#)" refer to small, integrated circuits designed to perform specific tasks within larger systems. These microcontrollers are essentially compact computers on a single chip, containing a processor core, memory, and programmable input/output peripherals. They are called "embedded" because they are embedded within electronic devices to control various functions, rather than serving as standalone computers. Microcontrollers are crucial in modern electronics, providing the intelligence and control needed for a wide range of applications.

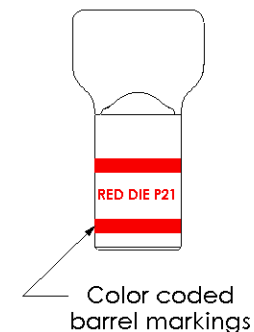
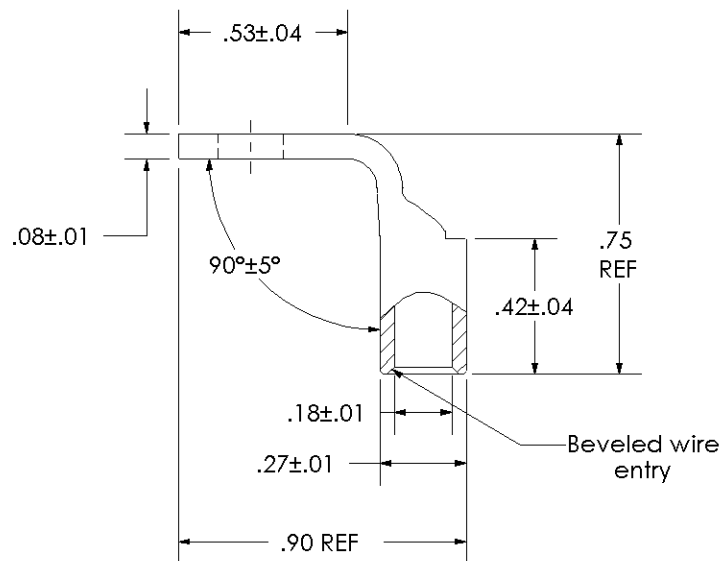
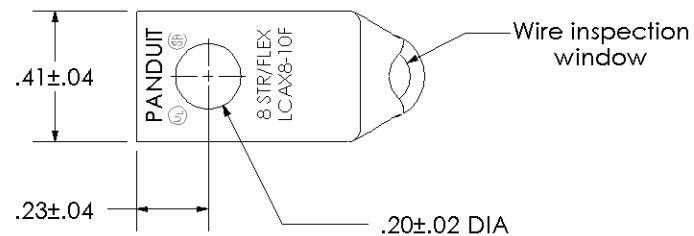
### Applications of "[Embedded - Microcontrollers](#)"

#### Details

Product Status	Active
Core Processor	ARM® Cortex®-M0
Core Size	32-Bit Single-Core
Speed	48MHz
Connectivity	I <sup>2</sup> C, SPI, UART/USART
Peripherals	DMA, POR, PWM, WDT
Number of I/O	51
Program Memory Size	256KB (256K x 8)
Program Memory Type	FLASH
EEPROM Size	-
RAM Size	32K x 8
Voltage - Supply (Vcc/Vdd)	2.4V ~ 3.6V
Data Converters	A/D 18x12b
Oscillator Type	Internal
Operating Temperature	-40°C ~ 85°C (TA)
Mounting Type	Surface Mount
Package / Case	64-LQFP
Supplier Device Package	64-LQFP (10x10)
Purchase URL	<a href="https://www.e-xfl.com/product-detail/stmicroelectronics/stm32f030rct6">https://www.e-xfl.com/product-detail/stmicroelectronics/stm32f030rct6</a>

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Material	High Conductivity Seamless Copper Tube
Plating	Electro-Tin
Wire Size	8 STR/FLEX
Wire Type	Stranded Copper: Class B & C, Compact, Class G, H, I, K, M, Locomotive
Wire Strip Length	1/2 in.
Stud Size	#10
UL Listed Wire Connector	Yes, for applications up to 35kv. Consult cable manufacturer for voltage stress relief instructions with applications greater than 2000 volts.
UL Temperature Rating	90° C
C.S.A Certified Wire Connector	Yes
Panduit Color Code on Barrel	RED
Panduit Die Index No. on Barrel	P21
Alternate Industry Die Index No. ( ) on Barrel	N/A



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REV	DATE	BY	CHK	DESCRIPTION	ECN

**PANDUIT CORP. TINLEY PARK, ILLINOIS**

LCAX8-10F-L  
Copper Lug - One-Hole, Standard Flex Barrel, 90° Angle Tongue

SCALE N/A DRAWING NO / CAD FILE LCAX8-10F-CUST