▶ AVR 개발 보드

⊕ 크게보기

▶ AM-128PRO 모듈

모델	▶ AM-128PRO
제조사	▶ (주)뉴티씨(NEWTC)
가격	▶ 22,000 원

▶ 제품 상세 설명

▶ AM-128PRO 모듈의 구성

ATMega128 TQFP
ISP 연결
5V 전원
Reset S/W
전원 안정 콘덴서
16Mhz X-tal
RS-232 커넥터 2개
MAX232
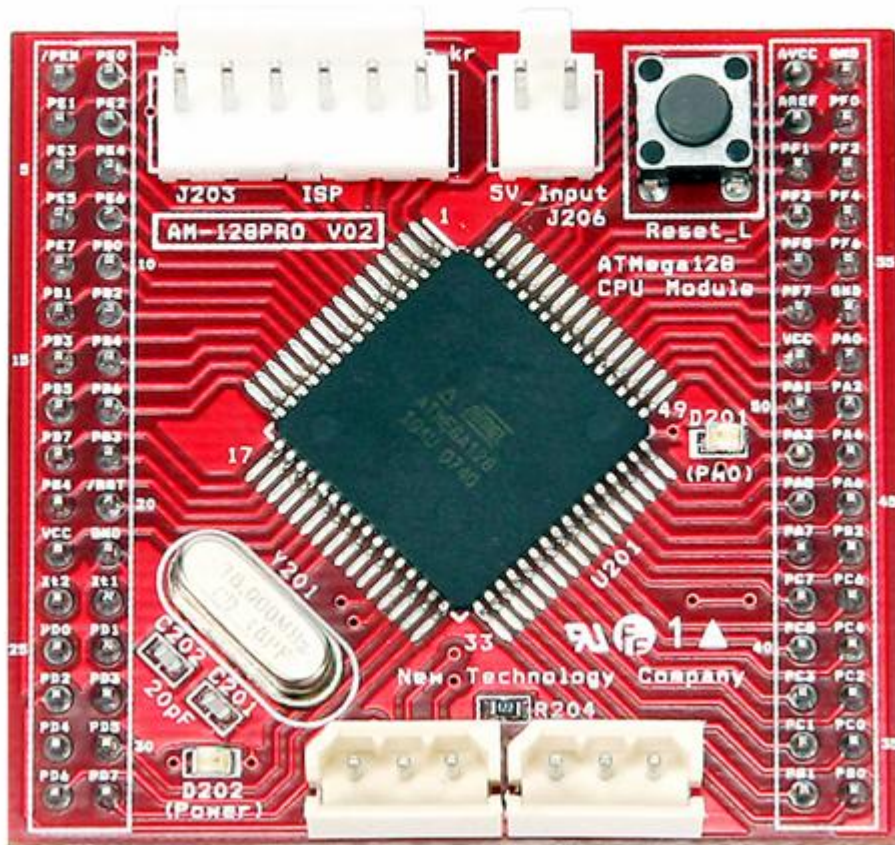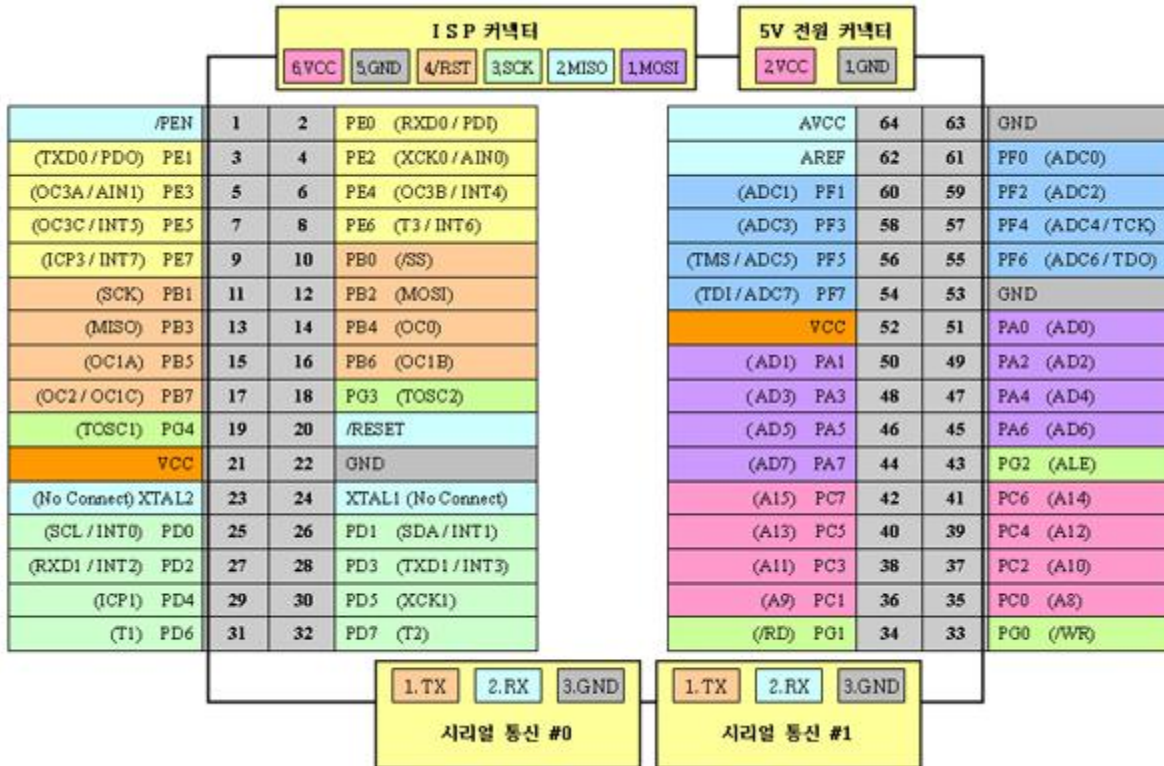
▶ AM-128PRO 모듈의 특징

◆ ATMega128 16AU AVR 마이크로 컨트롤러 사용

◆ 2줄짜리 2.54 Header Pin이 양쪽으로 32PIN씩 배치되어 있음

◆ MAX232 내장으로 RS-232 통신 가능 UART0, UART1 (별매 Serial Cable 필요)

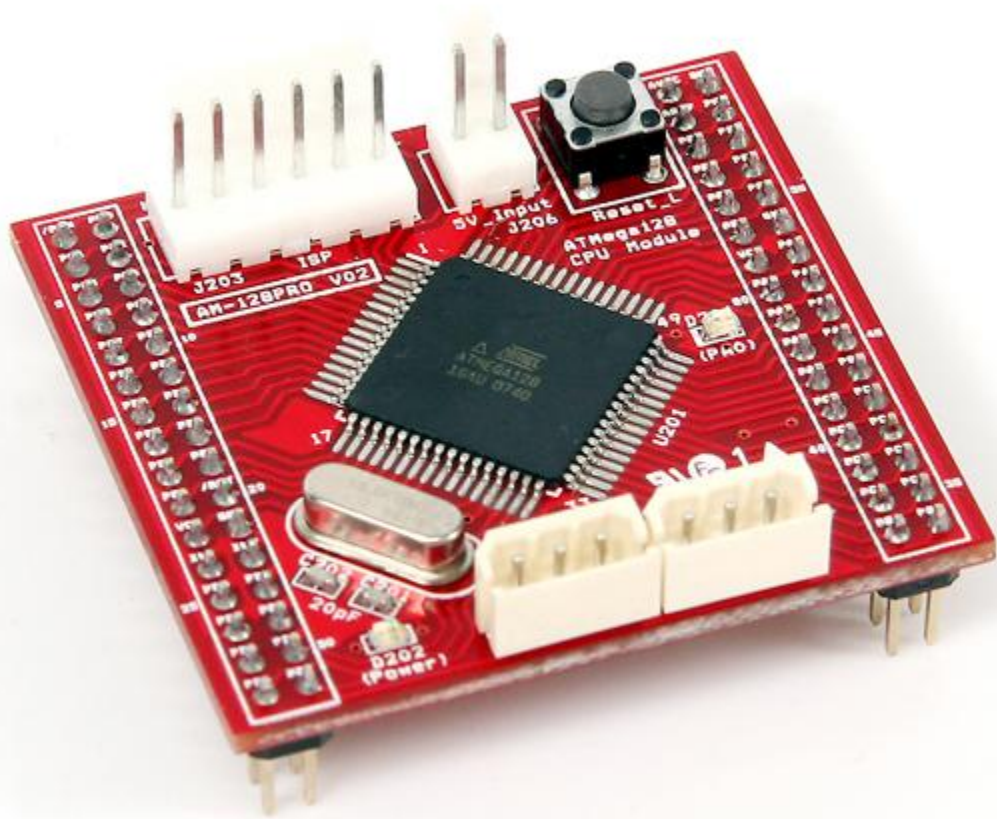◆ ISP 커넥터, 16Mhz X-tal, Reset S/W, 전원 LED 내장
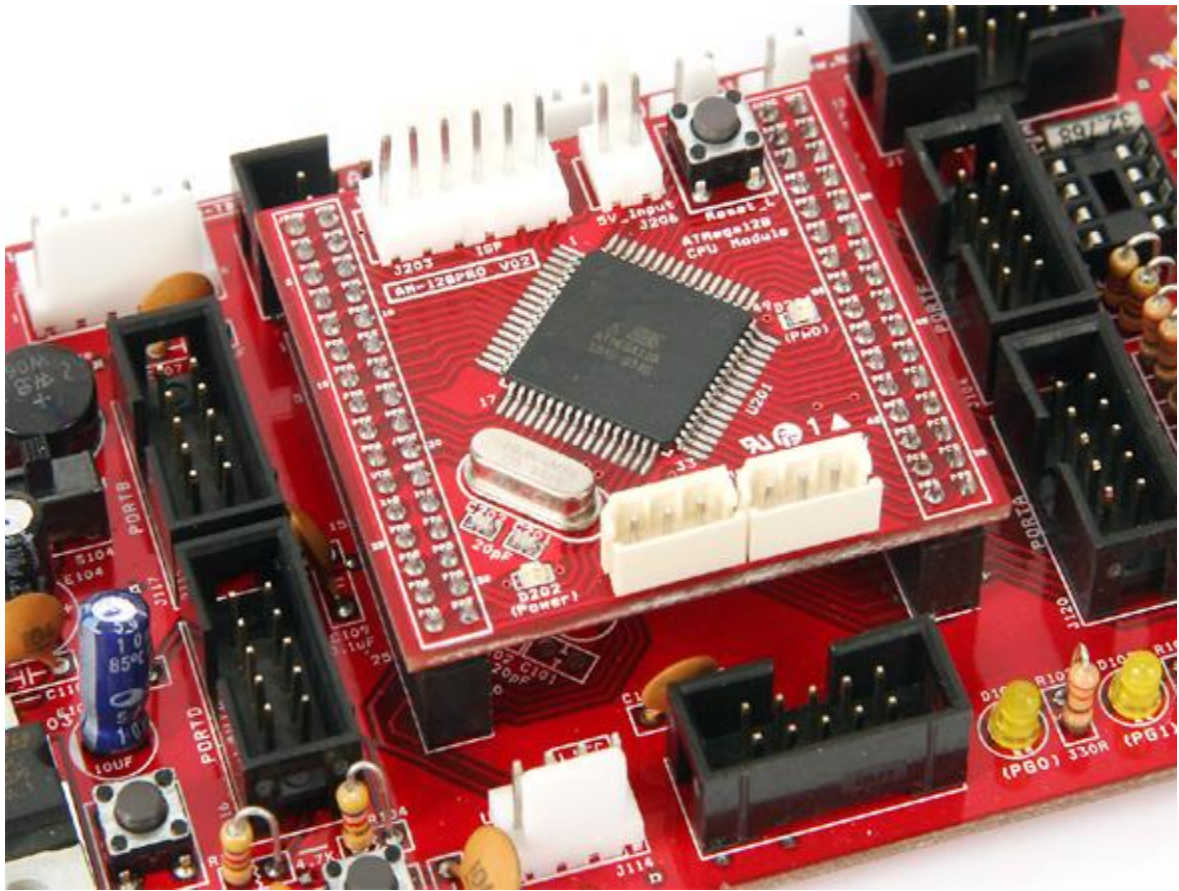
◆ 크기 : 47mm * 47mm

▶ AM-128PRO 모듈 핀 번호

ISP 커넥터

6.VCC	5.GND	4./RST	3.SCK	2.MISO	1.MOSI

5V 전원 커넥터

2.VCC	1.GND

/PEN	1	2	PE0 (RXD0 / PDI)	
(TXD0 / PDO) PE1	3	4	PE2 (XCK0 / AIN0)	
(OC3A / AIN1) PE3	5	6	PE4 (OC3B / INT4)	
(OC3C / INT5) PE5	7	8	PE6 (T3 / INT6)	
(ICP3 / INT7) PE7	9	10	PB0 (/SS)	
(SCK) PB1	11	12	PB2 (MOSI)	
(MISO) PB3	13	14	PB4 (OC0)	
(OC1A) PB5	15	16	PB6 (OC1B)	
(OC2 / OC1C) PB7	17	18	PG3 (TOSC2)	
(TOSC1) PG4	19	20	/RESET	
VCC	21	22	GND	
(No Connect) XTAL2	23	24	XTAL1 (No Connect)	
(SCL / INT0) PD0	25	26	PD1 (SDA / INT1)	
(RXD1 / INT2) PD2	27	28	PD3 (TXD1 / INT3)	
(ICP1) PD4	29	30	PD5 (XCK1)	
(T1) PD6	31	32	PD7 (T2)	

AVCC	64	63	GND	
AREF	62	61	PF0 (ADC0)	
(ADC1) PF1	60	59	PF2 (ADC2)	
(ADC3) PF3	58	57	PF4 (ADC4 / TCK)	
(TMS / ADC5) PF5	56	55	PF6 (ADC6 / TDO)	
(TDI / ADC7) PF7	54	53	GND	
VCC	52	51	PA0 (AD0)	
(AD1) PA1	50	49	PA2 (AD2)	
(AD3) PA3	48	47	PA4 (AD4)	
(AD5) PA5	46	45	PA6 (AD6)	
(AD7) PA7	44	43	PG2 (ALE)	
(A15) PC7	42	41	PC6 (A14)	
(A13) PC5	40	39	PC4 (A12)	
(A11) PC3	38	37	PC2 (A10)	
(A9) PC1	36	35	PC0 (A8)	
(/RD) PG1	34	33	PG0 (/WR)	

시리얼 통신 #0

1.TX	2.RX	3.GND

시리얼 통신 #1

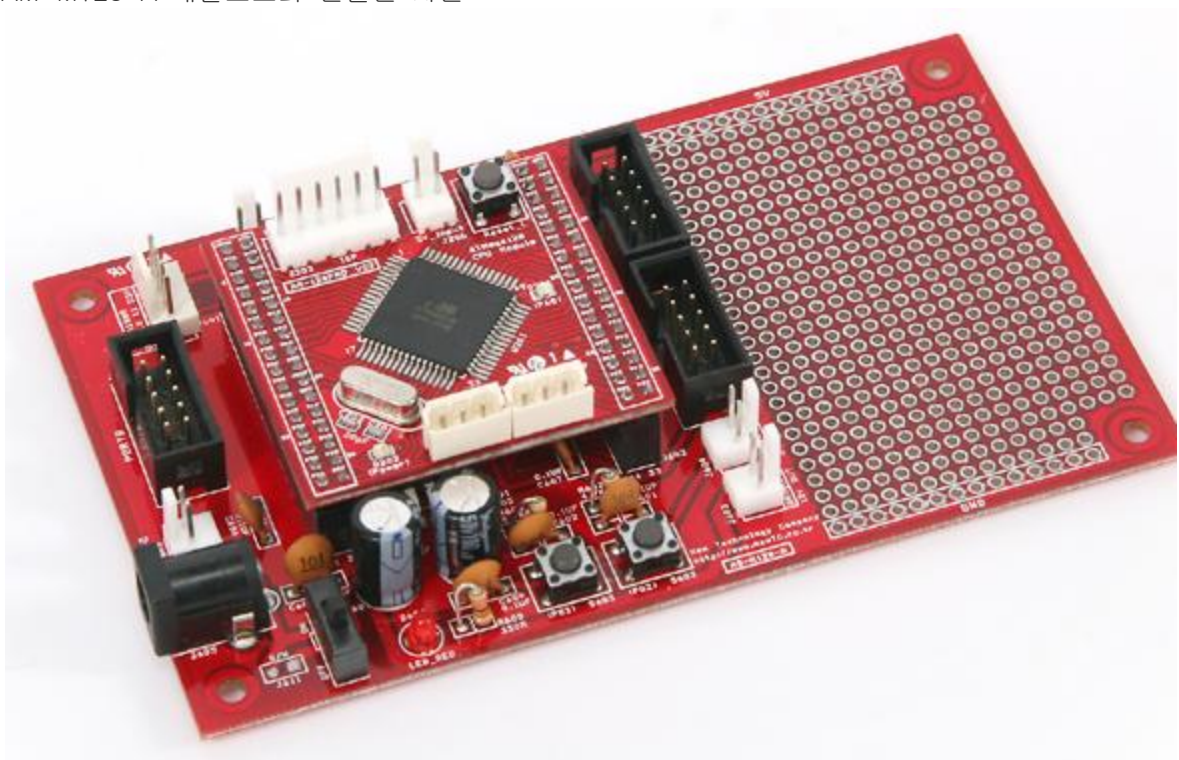| 1.TX	2.RX	3.GND

- 그림을 클릭하시면 큰 그림이 나옵니다.

▶ AM-128PRO 모듈 사진

KD-128PRO 개발보드와 연결된 사진

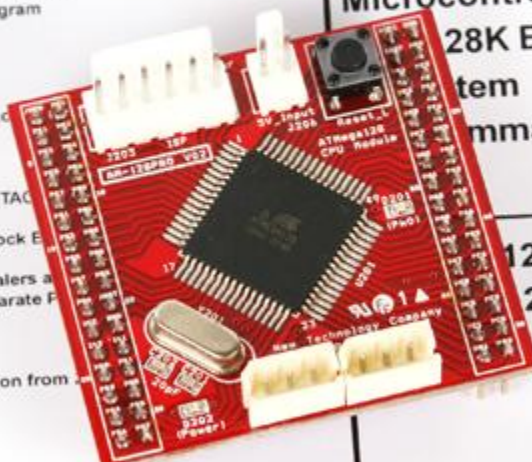AM-M128-A 개발보드와 연결된 사진

USB-ISP 를 이용하여 프로그램을 다운로드 하는 사진

Features

- High-performance, Low-power AVR® 8-bit Microcontroller
- Advanced RISC Architecture
  - 133 Powerful Instructions – Most Single Clock Cycle Execution
  - 32 x 8 General Purpose Working Registers + Peripheral Control Registers
  - Fully Static Operation
  - Up to 16 MIPS Throughput at 16 MHz
  - On-chip 2-cycle Multiplier
- Nonvolatile Program and Data Memories
  - 128K Bytes of In-System Reprogrammable Flash
    Endurance: 10,000 Write/Erase Cycles
  - Optional Boot Code Section with Independent Lock Bits
    In-System Programming by On-chip Boot Program
    True Read-While-Write Operation
  - 4K Bytes EEPROM
    Endurance: 100,000 Write/Erase Cycles
  - 4K Bytes Internal SRAM
  - Up to 64K Bytes Optional External Memory Space
  - Programming Lock for Software Security
  - SPI Interface for In-System Programming
- JTAG (IEEE std. 1149.1 Compliant) Interface
  - Boundary-scan Capabilities According to the JTAG
  - Extensive On-chip Debug Support
  - Programming of Flash, EEPROM, Fuses and Lock B
- Peripheral Features
  - Two 8-bit Timer/Counters with Separate Prescalers a
  - Two Expanded 16-bit Timer/Counters with Separate P
    Capture Mode
  - Real Time Counter with Separate Oscillator
  - Two 8-bit PWM Channels
  - 6 PWM Channels with Programmable Resolution from
  - Output Compare Modulator
  - 8-channel, 10-bit ADC
    8 Single-ended Channels
    7 Differential Channels
    2 Differential Channels with Programmable Gain at 1x, 10x, or 200x
  - Byte-oriented Two-wire Serial Interface
  - Dual Programmable Serial USARTs
  - Master/Slave SPI Serial Interface
  - Programmable Watchdog Timer with On-chip Oscillator

ATMEL

8-bit AVR
Microcontroller
28K Bytes
tem
mmable

128
28L