

## ET-BASE PIC18F8722 (ICD2)

**ET-BASE PIC8722 (ICD2)** is PIC Microcontroller Board of Microchip Co., Ltd. that uses Microcontroller PIC18F8722 80-PIN TQFP to arrange devices into compact size and uses resources of Microcontroller mainly. Moreover, it is deigned to support applications with Test Board "ET-BASIC I/O".

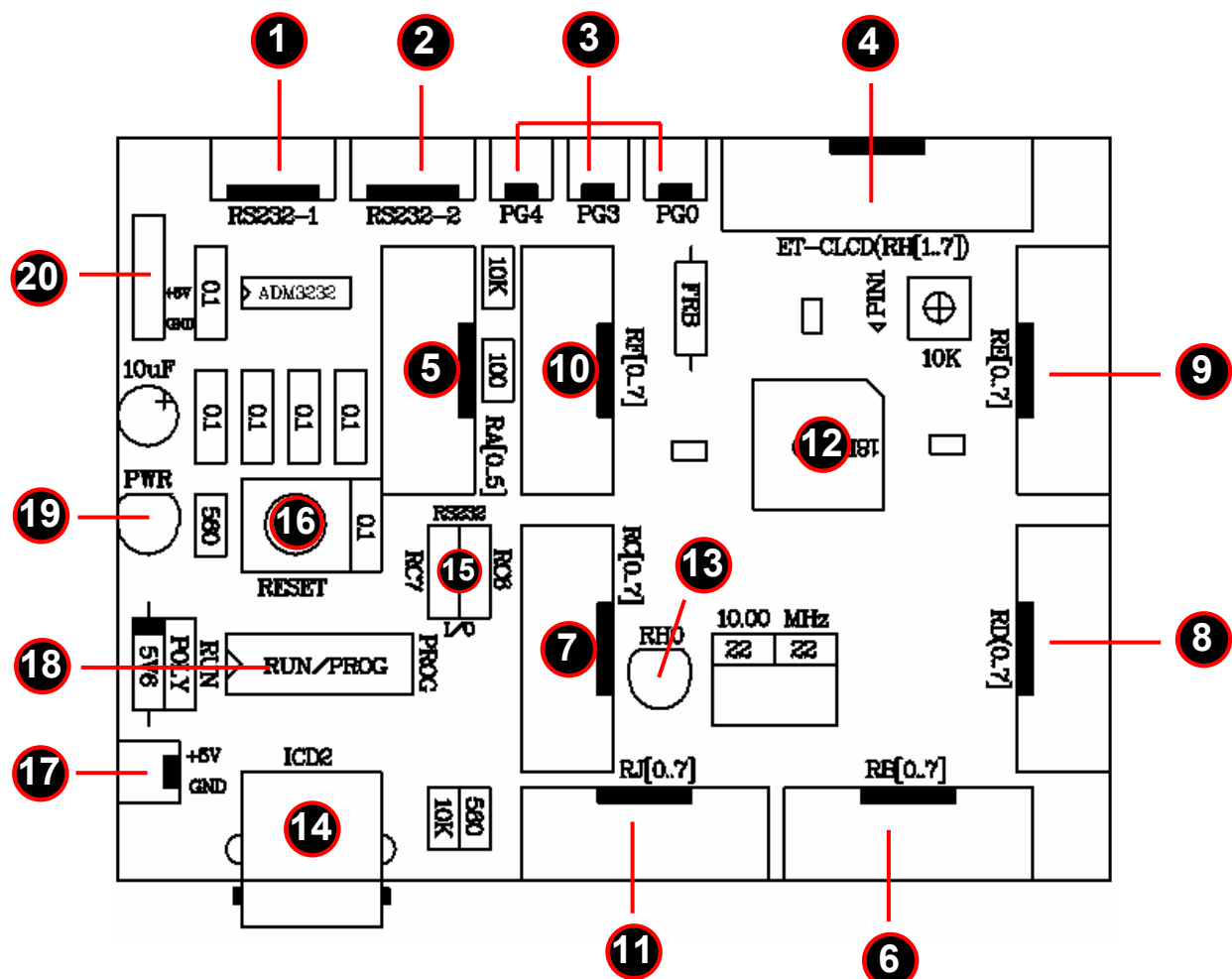
**Table shows specifications of Microcontroller PIC18F8722**

Specifications	PIC18F8722
Operating Frequency	DC – 40 MHz
Program Memory (Bytes)	128K
Data Memory (Bytes)	3936
Data EEPROM Memory (Bytes)	1024
Interrupt Sources	29
I/O Ports	Ports A, B, C, D, E, F, G, H, J
Timers	5
Capture/Compare/PWM Modules	2
Enhanced Capture/Compare/ PWM Modules	3
Enhanced USART	2
Serial Communications	MSSP, Enhanced USART
Parallel Communications (PSP)	Yes
10-bit Analog-to-Digital Module	16 Input Channels
Resets (and Delays)	POR, BOR,RESET Instruction, Stack Full, Stack Underflow (PWRT, OST), MCLR (optional), WDT
Programmable High/Low-Voltage Detect	Yes
Programmable Brown-out Reset	Yes
Instruction Set	75 Instructions; 83 with Extended Instruction Set enabled
Packages	80-pin TQFP

- Specifications of Board

- Support Microcontroller PIC18F8722 80 PIN
- Signal Clock Crystal Oscillator 10 MHz for PIC18F8722 (can use x4 from PLL to be 40 MHz)
- 7 I/O Port 10 PIN (be arranged under standard of ETT)
- 3 I/O Port 2 PIN
- 2 Port Driver RS232
- 1 Port LCD that is arranged under standard of ETT (ET-CLCD)
- Port Download ICD2 supports external Programmer (ET-PGMPIC USB)
- Connector VCC and GND

## Structure of Board ET-BASE PIC8722 (ICD2)



## Detailed Description

- **No.1** is Connector Port RS232 the first Channel.

### RS232-1



TXD = RC6    RXD = RC7

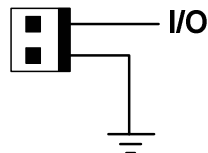
- **No.2** is Connector Port RS232 the second Channel.

### RS232-2

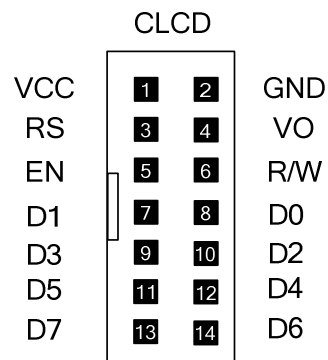


TXD = RG1    RXD = RG2

- **No.3** is Connector I/O 2 PIN to interface PG0, PG3 and PG4. Its Pin arrangement is shown below.

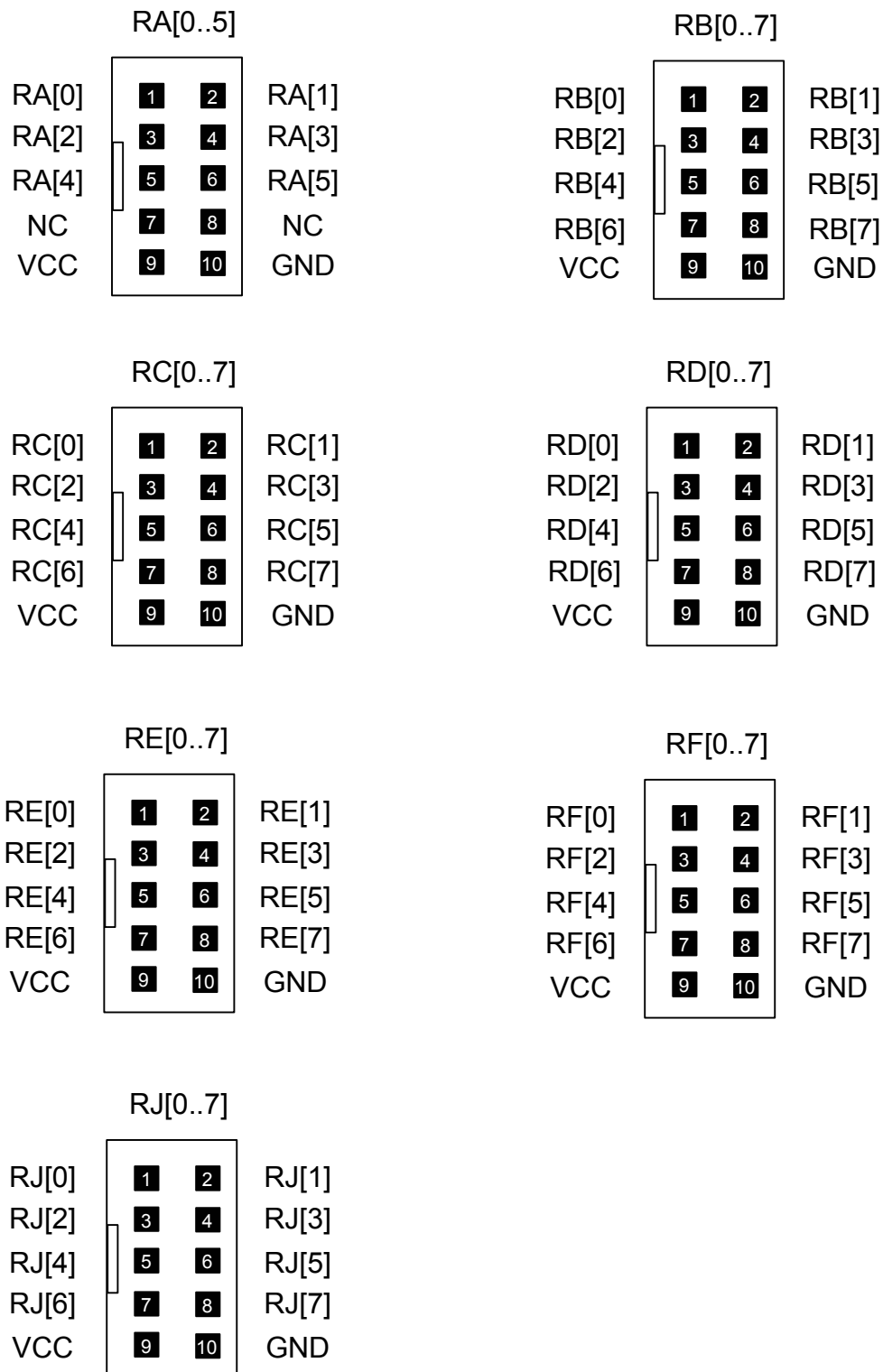


- **No. 4** is Connector LCD Display as Character 14 PIN that is arranged under standard of ETT and uses 4 data bit Interface.

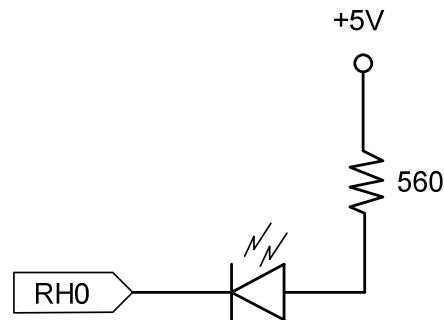


LCD	MCU
RS	RH1
R/W	RH2
EN	RH3
D0	GND
D1	GND
D2	GND
D3	GND
D4	RH4
D5	RH5
D6	RH6
D7	RH7

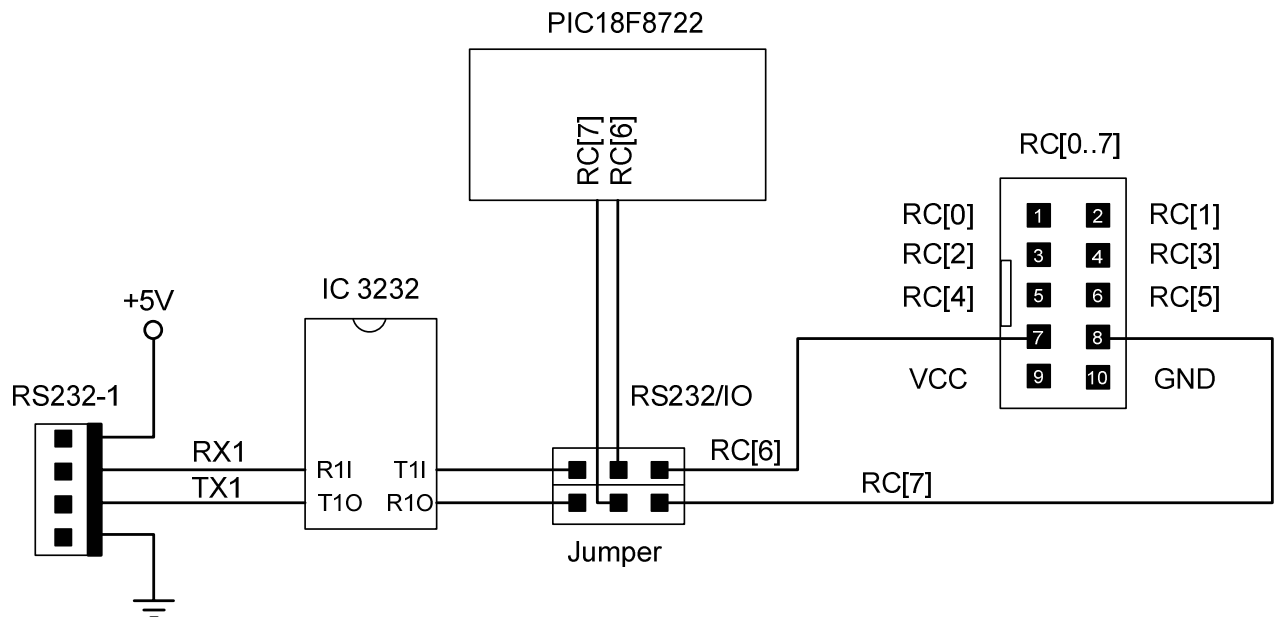
- No.5, 6, 7, 8, 9, 10 and 11 is Port I/O PIN of PIC Microcontroller that is PORT-RA, PORT-RB, PORT-RC, PORT-RD, PORT-RE, PORT-RF and PORT-RJ respectively. Its Pin arrangements are shown below.



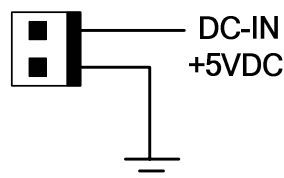
- **No.12** is PIC18F8722 Microcontroller.
- **No.13** is LED that is interfaced with RH0 Pin for writing program to test operation of board simply.



- **No.14** is Port ICD2 to download Code Program into Microcontroller and uses with external Programmer such as ET-PGMPIC USB.
- **No.15** is Jumper to select interfacing signals between I/O Pin; RC6 and RC7 and Driver MAX232.



- **No.16** is RESET Program Switch.
- **No.17** is Connector Power Supply of Board and must be interfaced with Power Supply that is not higher than 5VDC. If Power Supply is higher than 5VDC, component maybe damaged.



- **No.18** is Switch to select mode operation between RUN Mode and PROGRAM Mode. When shifting Switch to PROG position, it will ON/OFF Pin that is used to program Code Data into Programmer to program the designed data; when shifting Switch to RUN position, Pins will come back to normal I/O Pin.



- **No.19** is LED to display state of Power Supply internal Board (Power Status LED).
- **No.20** is Connector Power Supply to use with Board ET-BASIC I/O.

### Source Code Programming

To program Data Code Program into Microcontroller of Board ET-BASE PIC8722 (ICD2) must use external Programmer such as ICD2, PICKit2 or "ET-PGMPIC USB" Programmer of ETT. It makes us interfacing Cable Program into Connector ICD2 as shown in the picture below. Other detailed description about application of Programmer can see in the User's Manual of the used Programmer.

