

D202W -a complete and powerful multi-effect DSP Board from Trigaudio, providing various application such as Wireless Microphone/ Mixer/Mic pre amp/Karaoke/Dynamic processor. D202W achieves any effects you want and have full confidence to deliver a high-quality effect level like the world's famous brands' sound . Expect for high quality DSP algorithm that suitable for each applications , we also integrate varieties of powerful user interface into the module .In addition, Trigaudio can provide control panel board with multi-function display and hardware user interface to support you quick evaluate the module .



D202W Features

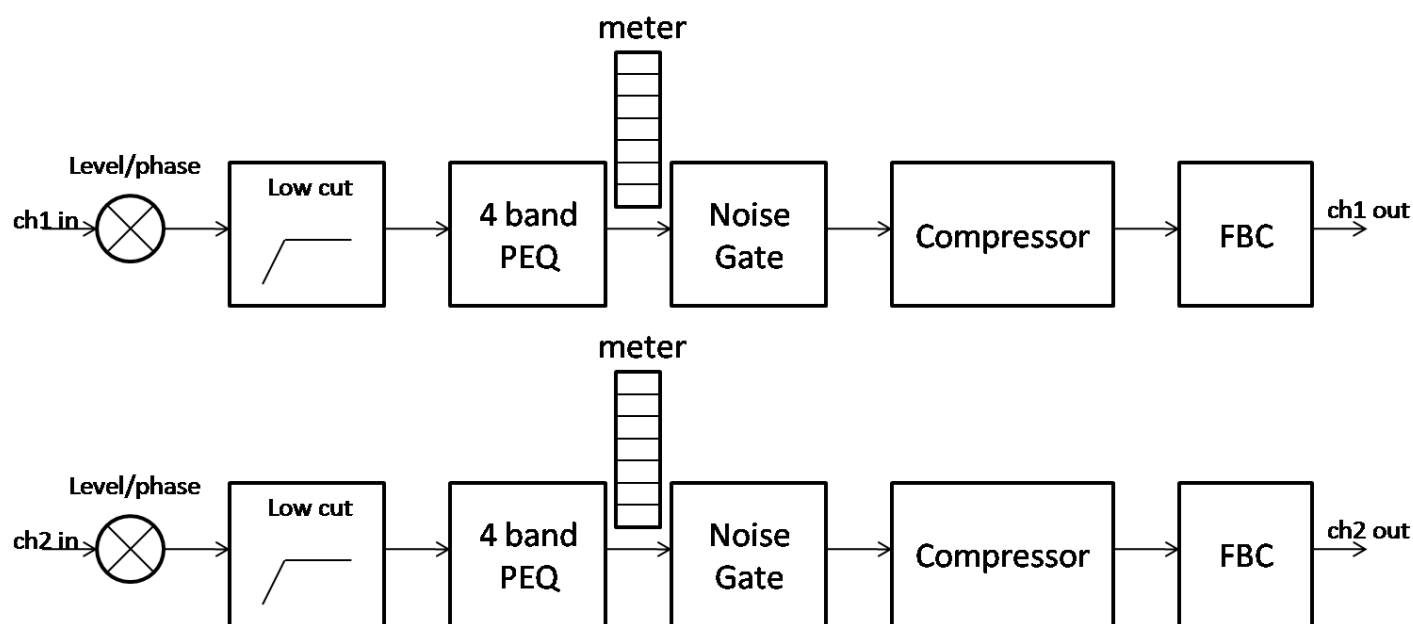
- Premium application for Wireless Microphone/Mic pre amp/mixer/dynamic processor...
- 24 bit digital signal processing with 24 bit AD/DA converters, supports up to 96KHz sampling rate
- Convenience with diverse and applicative Operation with multi-function control board (include LED/LCD panel) for quick evaluation and making a maximal creativity
- Specialized Dedicated feedback cancelation auto mode and manual mode
- Authentic filter and phase function for easy adjustment
- High-resolution equalizer and dynamic processor can match for professional wireless mic receiver and support user-friendly control with display
- ROHS compliant (PB-free) is provided in all of our products

D202W Specification

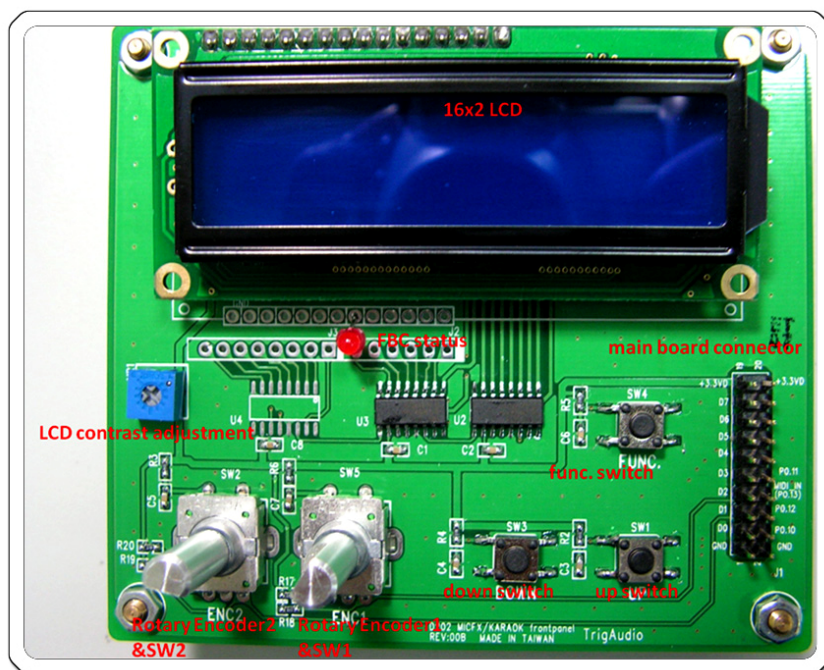
Analog input signal	2ch
Input impedance	100k Ω
Maximum input level	0dBu or 2.8Vp-p
Maximum output level	0dBu or 2.8Vp-p
Nominal Level:	0dB
Analog output signal	2ch
Output impedance	470 Ω
DSP arithmetic	24x32 bit for filtering process
AD/DA conversion	24bit/48kHz
S/N ratio	> 100dB
THD+N	0.015%@1kHz 0dB
Frequency response	20Hz - 20kHz +/- 0.5 dB
Power supply	DC +6V, 160mA (Without display & controls)
Consumption	150 mA

1.Trigaudio D202W DSP module for Wireless Mic

Signal Processing Block:







Panel View:






2.Encoder & Switch Functions:



- **Up & Down SW:** select main functions (input level, low cut, 4-band PEQ, Noise Gate, compressor, Feedback cancel, input level meter)

<p><u>Special function:</u> at main function page , hold up & down SW for 1 sec will turn on the level meter mode:</p>	
<p>In level meter mode, if user not edit the parameter or change main functions using encoder or switches for 3 sec the display will automatically switch to input level meter display:</p>	
<p>If user adjust the parameters, the display will show up the original main function editing page.</p>	
<p>hold up& down switch again will turn off the meter mode:</p>	

● **Function SW:** switch channel status(ch1, ch2 and ch1 & ch2 link)

switch channel status(ch1, ch2 and ch1 & ch2 link)	
FBC function: select the FBC mode (auto mode and manual mode)	
	

● **Encoder 2:**

change parameter pages	
<u>FBC function:</u> select each Notch filter for viewing its status and editing the Notch center frequency.	

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● **SW2 :**

at each parameter sub pages it use for switching two parameters (the name of the parameter will be blink)	
<u>FBC function:</u> FBC bypass on/off	

● **Encoder 1:**

adjust the parameter value	
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● **SW1 : hold this SW for 1 sec that will return the parameter to default settings.**

FBC function:

To select FBC mode by switching the Func. button.

☐ Auto Mode:

DSP will automatically detect the feedback frequency and apply notch filtering to suppress the feedback. There are 12 Notch filtering point, and will automatically update if 12 point is full. To view which frequency point is under feedback, use encoder2 to select Notch00~Notch11. To bypass the FBC use SW2, when bypassing FBC, the 12 frequency point will be clear.

☐ Manual Mode:

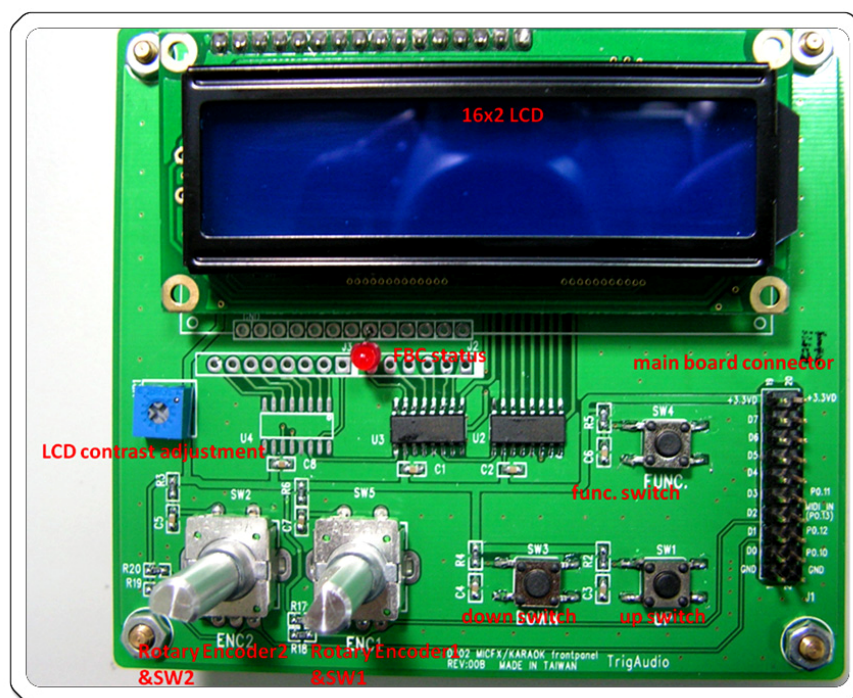
User can set 12 fixed frequency point to suppress the feedback. To select Notch00~Notch11 use encoder2, set the frequency by adjusting encoder1 (the frequency value will be blink), the setting will be store by pushing the SW1 or wait 2 sec (after the blinking off). The frequency setting will be memorized even after power off. To bypass the FBC use SW2.

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3.Trigaudio D202 DSP module -- Feedback cancel

Panel View:



FBC operation:

To select FBC mode by switching the Func. button.

○ Auto Mode:

DSP will automatically detect the feedback frequency and apply notch filtering to suppress the feedback. Each channel has 12 Notch filtering points, and will automatically update if 12 point is full. To view which frequency point is under feedback, use encoder2 to select Notch01~Notch12. To bypass the FBC use up SW, when bypassing FBC, the 12 frequency point will be clear. Press SW2 to switch the status for ch1 and ch2.

○ Manual Mode:

User can set 12 fixed frequency point to suppress the feedback. To select Notch01~Notch12 use encoder2, set the frequency by adjusting encoder1 (the frequency value will be blink), the setting will be store by pushing the SW1 or wait 2 sec (after the blinking off). The frequency setting will be memorized even after power off. To bypass the FBC use up SW. Press SW2 to switch the channel.

Encoder & Switch Functions:

- **Function SW:**

select the FBC mode (auto mode and manual mode)	
	

- **Encoder 2:**

select each Notch filter for viewing its status and editing the Notch center frequency.	
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- **SW2 :**

SW2 : FBC channel switching(new)	
	

- Up SW : FBC bypass on/off

FBC bypass on/off



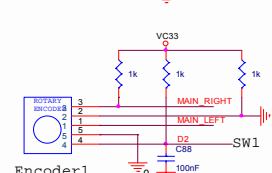
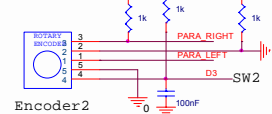
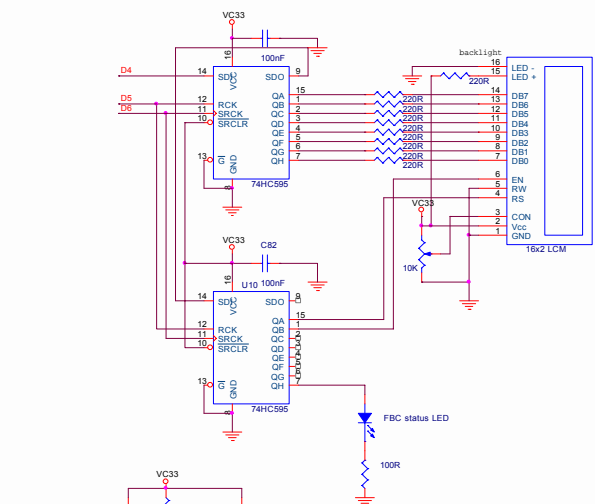
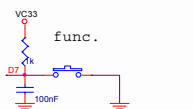
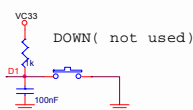
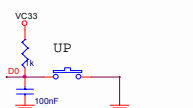
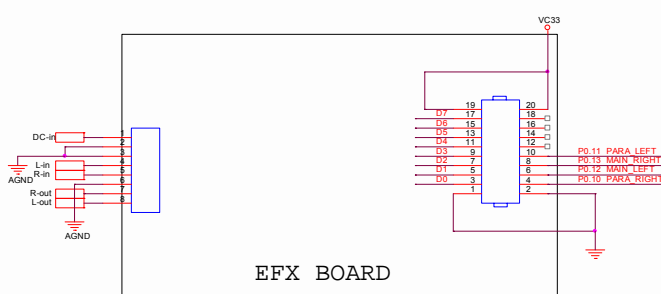
- Encoder 1:

adjust the frequency value at manual mode (the frequency value will be blink)



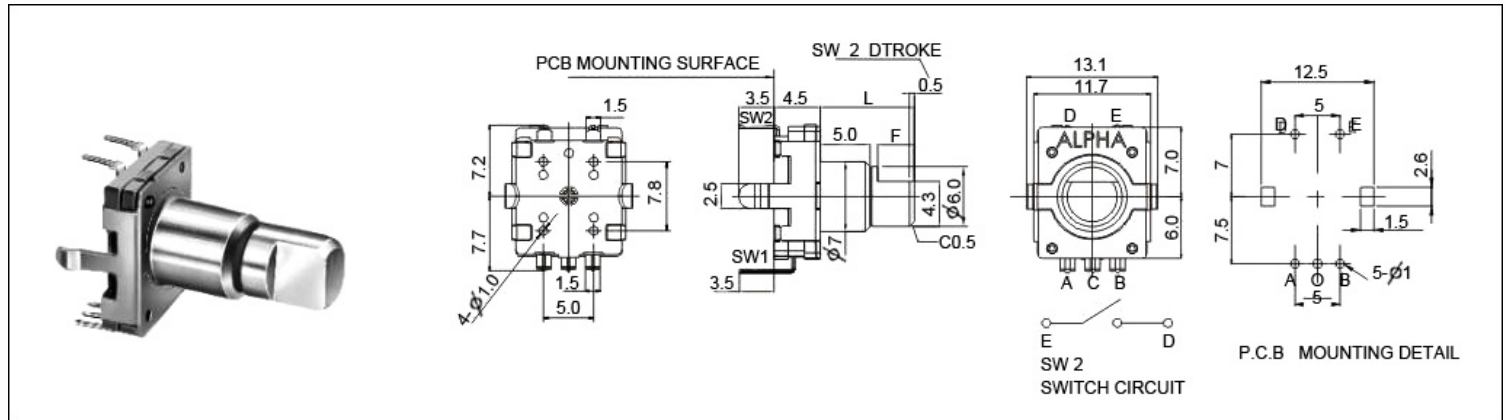
- SW1 : set the frequency value for each notch filter at manual mode
- FBC active status LED(new) : when module detect new feedback frequency in auto mode, the FBC status LED will be on for 2 sec and then off.

4. Board Panel Schematic

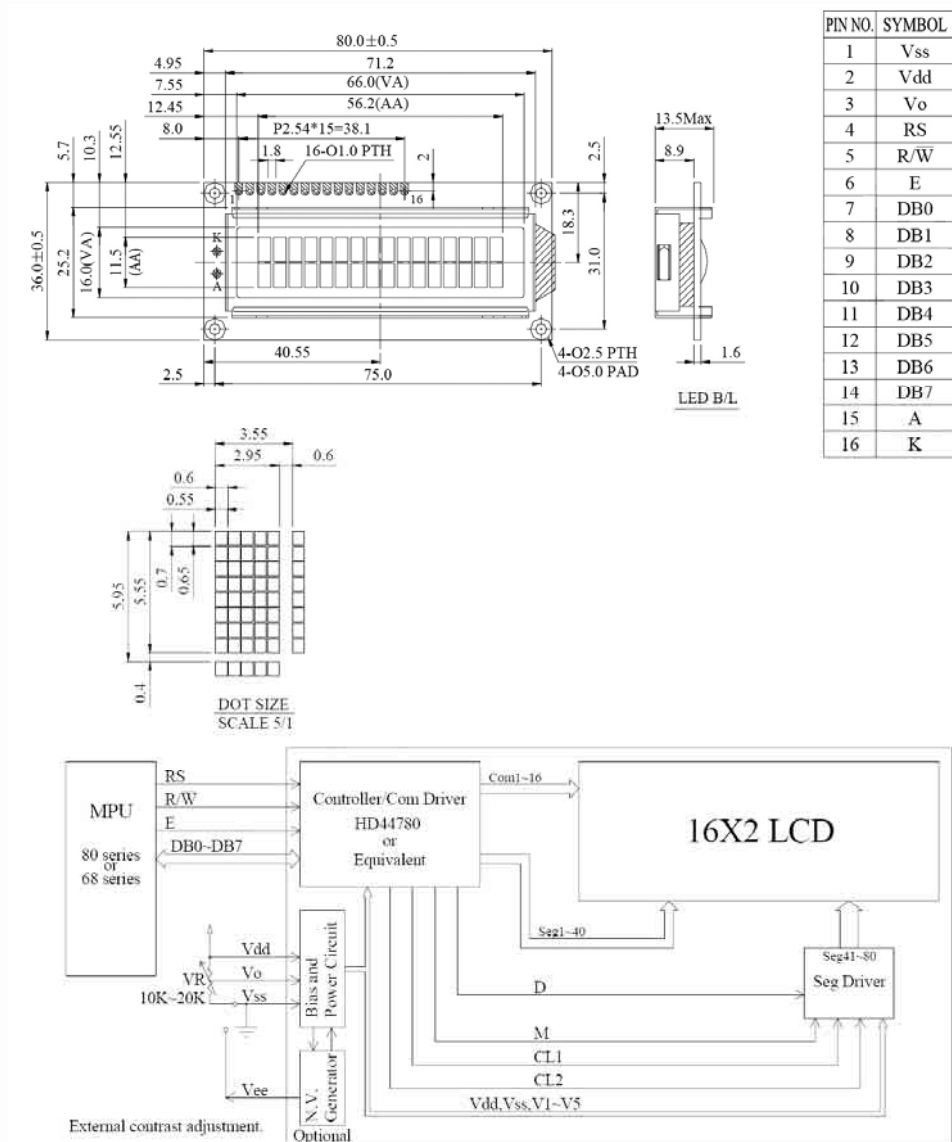


5.Suggest Encoder & LCD

ROTARY ENCODER (15Pulse type) *other type must customize the firmware



LCD Dimension & Block Diagram



6.D202W board dimension

