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## Multi-level Trigger – Solving the sharp problem in Serial Signal

# 702000R

High Speed / Long depth / Multichannel Measurement All by One Set



Multi-level trigger is composed by many single-level triggers. More trigger levels could make the trigger condition more strict, which means more event conditional status could be set to capture particular signal.



### Powerful Hardware Function: 256-level Trigger

LAP-B (702000R) has 256 levels “multi-level trigger”, each level could be set as high/low, rising/falling edge and pulse width to trigger.

256 - level trigger is powerful to capture most signal problems. It would do a great help for project researching and developing, product debugging or even processing on the production line.

Channel Trigger Setup

Trigger Group0 | Trigger Group1 | External Trigger(Click)

Internal Trigger Enable

	7	6	5	4	3	2	1	0
Filter Condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trigger Condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	15	14	13	12	11	10	9	8
Filter Condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trigger Condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Port A | Port D

Activate     Enable    Space Time Value(Min) 40ns    Space Time Value(Max) 21.474836475s

Wait     Enable    Width Time Value(Min) 40ns    Width Time Value(Max) 21.474836475s

Wait space end point     Wait width end point

Level 0  Level 1  Level 2  Level 3  Level 4  Level 5  Level 6  Level 7  Level 8  Level 9  Level 10  Level 11  Level 12  Level 13  Level 14  Level 15  Level 16  Level 17  Level 18  Level 19  Level 20  Level 21  Level 22  Level 23  Level 24  Level 25  Level 26  Level 27  Level 28  Level 29  Level 30  Level 31  Level 32  Level 33  Level 34  Level 35  Level 36  Level 37  Level 38  Level 39  Level 40  Level 41  Level 42  Level 43  Level 44  Level 45  Level 46  Level 47  Level 48  Level 49  Level 50  Level 51  Level 52  Level 53  Level 54  Level 55  Level 56  Level 57  Level 58  Level 59  Level 60  Level 61  Level 62  Level 63  Level 64  Level 65  Level 66  Level 67  Level 68  Level 69  Level 70  Level 71  Level 72  Level 73  Level 74  Level 75  Level 76  Level 77  Level 78  Level 79  Level 80  Level 81  Level 82  Level 83  Level 84  Level 85  Level 86  Level 87  Level 88  Level 89  Level 90  Level 91  Level 92  Level 93  Level 94  Level 95  Level 96  Level 97  Level 98  Level 99  Level 100  Level 101  Level 102  Level 103  Level 104  Level 105  Level 106  Level 107  Level 108  Level 109  Level 110  Level 111  Level 112  Level 113  Level 114  Level 115  Level 116  Level 117  Level 118  Level 119  Level 120  Level 121  Level 122  Level 123  Level 124  Level 125  Level 126  Level 127  Level 128  Level 129  Level 130  Level 131  Level 132  Level 133  Level 134  Level 135  Level 136  Level 137  Level 138  Level 139  Level 140  Level 141  Level 142  Level 143  Level 144  Level 145  Level 146  Level 147  Level 148  Level 149  Level 150  Level 151  Level 152  Level 153  Level 154  Level 155  Level 156  Level 157  Level 158  Level 159  Level 160  Level 161  Level 162  Level 163  Level 164  Level 165  Level 166  Level 167  Level 168  Level 169  Level 170  Level 171  Level 172  Level 173  Level 174  Level 175  Level 176  Level 177  Level 178  Level 179  Level 180  Level 181  Level 182  Level 183  Level 184  Level 185  Level 186  Level 187  Level 188  Level 189  Level 190  Level 191  Level 192  Level 193  Level 194  Level 195  Level 196  Level 197  Level 198  Level 199  Level 200  Level 201  Level 202  Level 203  Level 204  Level 205  Level 206  Level 207  Level 208  Level 209  Level 210  Level 211  Level 212  Level 213  Level 214  Level 215  Level 216  Level 217  Level 218  Level 219  Level 220  Level 221  Level 222  Level 223  Level 224  Level 225  Level 226  Level 227  Level 228  Level 229  Level 230  Level 231  Level 232  Level 233  Level 234  Level 235  Level 236  Level 237  Level 238  Level 239  Level 240  Level 241  Level 242  Level 243  Level 244  Level 245  Level 246  Level 247  Level 248  Level 249  Level 250  Level 251  Level 252  Level 253  Level 254  Level 255  Level 256

256-level trigger

pulse width trigger



## Serial Bus Hardware Trigger – Real-time Capture Serial Signal Packet

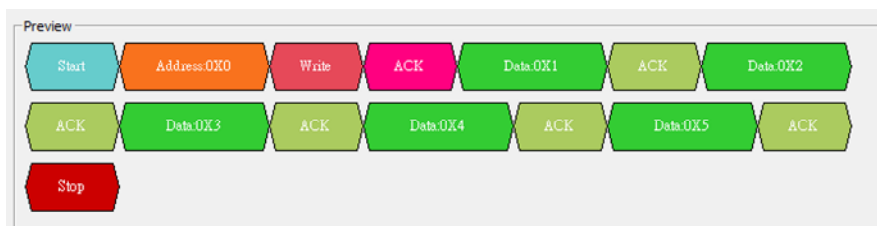
In fact, the multi-level trigger of LAP-B (702000R) could apply to many aspects, and the serial bus hardware trigger is a good example.

Serial bus hardware trigger could judge whether the bus packet content satisfies the trigger condition or not, then capture particular serial signal packets instantly and accurately. It also has an easy-to-operate graphic interface. Until now only I2C, SPI, UART, CAN BUS and SVID support this function, more buses will support it in the future.



Example:

Set I2C to trigger with  
Address=0x00, Write and  
Data=01/02/03/04/05.



※Want to know more detailed specification? [<click here>](#) ※