

TREK1000 Switch S1

Table 7: DIP Switch (S1) Settings on an EVB1000

Switch	Function	Function
1	Reserved	This switch should be set to ON
2	MODE	ON: Data Rate = 6.8 Mbps OFF: Data Rate = 110 kbps
3	CHANNEL	ON: Channel 5 OFF: Channel 2
4	UNIT	ON: Anchor OFF: Tag
5	UNIT ID [2]	Set the ID numbers of the EVB1000 units. Switch 7 is the LSB. ID= <u>1</u> => UNIT ID[2:0] = 001
6	UNIT ID [1]	
7	UNIT ID [0]	
8	Reserved	This switch should be set to OFF

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Table 11: S1 switch configuration descriptions

Switch	Off function	On function	Description
S1-1	Disables ARM booting	Enables ARM booting	If the onboard ARM functionality is not required this switch can be turned off to disable ARM booting.
S1-2	Disable fast onboard ranging	Enable fast onboard ranging	Only used for firmware versions prior to v3.05. When turned on the ranging response time is set to 5 ms. When turned off, the ranging response time is set to 150 ms. This switch is not used for software version v3.05 and above.
S1-3	Enable USB to SPI application	Disable USB to SPI application	When switched off, the USB to SPI application runs on the onboard ARM to enable "DecaRanging" PC application to control the DW1000.
S1-4	Enable DecaRanging Tag function	Enable DecaRanging Anchor function	Switches between on-board "DecaRanging" Anchor and Tag functionality.
S1-5	Operational mode selection	Operational mode selection	See EVK1000 operational modes for the functionality of this switch
S1-6	Operational mode selection	Operational mode selection	See EVK1000 operational modes for the functionality of this switch
S1-7	Operational mode selection	Operational mode selection	See EVK1000 operational modes for the functionality of this switch
S1-8	Disable remote response time configuration	Enable remote response time configuration	Only used for firmware versions prior to v3.05. When turned on, allows the "DecaRanging" PC application to modify the default 150 ms response time in the embedded DecaRanging application. When turned off, this functionality is not available. This switch is not used for software version v3.05 and above.

S1-5	S1-6	S1-7	Mode	Channel	Data Rate	PRF	Preamble	Preamble Code	Non standard SFD
OFF	OFF	OFF	1	2	110 kbps	16	1024	3	Yes
ON	OFF	OFF	2	2	6.8 Mbps	16	128	3	No
OFF	ON	OFF	3 ¹	2	110 kbps	64	1024	9	Yes
ON	ON	OFF	4	2	6.8 Mbps	64	128	9	No
OFF	OFF	ON	5 ¹	5	110 kbps	16	1024	3	Yes
ON	OFF	ON	6	5	6.8 Mbps	16	128	3	No
OFF	ON	ON	7	5	110 kbps	64	1024	9	Yes
ON	ON	ON	8	5	6.8 Mbps	64	128	9	No