

Below is the Description of PCM parameters in BT EFuse. User can study 8723 PCM Spec as reference also.

There are six fields in BT Efuse for PCM setting:

PCM Function Settings	Description	Byte Address	Default Value
HCI/PCM I/F selection	Select which I/F SCO/ESCO Rx data will be transferred to. HCI:0x0, PCM External CODEC:0x1, I2S External CODEC: 0x02	0xF4	0x00
Audio Codec PCM data format	Select which Audio Codec PCM data format will be transferred to/from audio codec. Linear: 0x00, u-Law: 0x01, A-Law: 0x02, CVSD: 0x03	0xF5	0x01
PCM sampling data width	Select which data width for one sampling is. 16bit: 0x00, 8bit: 0x01	0xF6	0x01
SCO Convert table	Not used, always set 0x00	0xF7	0x00
PCM I/F Setting 1	PCM I/F Setting 1: bit[1:0] drive data phase 0: FS rise at bclk rising, data start at 1st FrameSync bit 1: FS rise at bclk rising, data start at 2nd FrameSync bit 2: FS rise at bclk falling, data start at 1st FrameSync bit 3: FS rise at bclk falling, data start at 2nd FrameSync bit bit[3:2] latch data phase 0: FS rise at bclk rising, data start at 1st FrameSync bit 1: FS rise at bclk rising, data start at 2nd FrameSync bit	0xF8~0xF9	0x70C5

	<p>2: FS rise at bclk falling, data start at 1st FrameSync bit</p> <p>3: FS rise at bclk falling, data start at 2nd FrameSync bit</p> <p>bit[5:4] Slot position</p> <p>Select which slot no the PCM data occupy from</p> <p>0: 1 slot</p> <p>1: 2 slot</p> <p>2: 3 slot</p> <p>3: 4 slot</p> <p>bit[6] bit_mode_8</p> <p>1: 8 bits</p> <p>0: 16 bits</p> <p>bit[7] msb_first</p> <p>1: msb first</p> <p>0: lsb first</p> <p>bit[11:8] FrameSync_len</p> <p>FrameSync_Len = (val + 1) bit = 0 + 1 = 1 bit (short frame)</p> <p>Bit[13:12] Slot mode</p> <p>Select how many slots in a FrameSync</p>		
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	0: 1 slot 1: 2 slot 2~3: 4 slot bit[14]: master mode 1: master mode 0: slave mode bit[15]: I ² S select 1: I ² S mode 0: PCM mode		
PCM I/F Setting 2	PCM I/F Setting 2: bit[7:0] audio gain value For 16-bit linear PCM data format, 8-bit programmable audio gain value can be padded to 8/13-bit sampling data bit[9:8] Padding selection For 16-bit linear PCM data format, it selects which data will be padded 0: Padding with all '0' 1: Padding with all '1' 2: Sign extension 3: Audio gain	0xFA~0xFB	0x0000

	<p>bit[10] Transfer 13-bit linear data to/from Audio Codec</p> <p>1: Enable 0: Disable</p> <p>bit[11] 13-bit data shifted in 16-bit linear data format 1: 13-bit data locates at higher 13 bits of 16-bit data 0: 13-bit data locates at lower 13 bits of 16-bit data</p> <p>bit[12] 8-bit data shifted in 16-bit linear data format 1: 8-bit data locates at higher 8 bits of 16-bit data 0: 8-bit data locates at lower 8 bits of 16-bit data</p> <p>bit[13]: FrameSync is disabled. 1: FrameSync will not be toggled. 0: FrameSync is toggled.</p> <p>bit[14]: Data out is muted. 1: Enable 0: Disable</p>		
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