The Polmar DB50 *.FRE file format is a simple binary file which contains all channels. Each channel occupies 89 bytes and all channels are simply appended in the file. So the second channel starts at position 90, no seperators or anything.

Each channelcontains the following 89 bytes. The contents of each part of the 89 bytes is described below, where the red and underlined bytes are described:

```
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - Channel#
0100010010030343330303030303030303030303030303030414243444546470000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - unknown
0100010010030343330303030303030303030303030303030414243444546470000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - Scan skip
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - Freq
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - TX offset
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - Channel name
0100010000003034333030303030303030303030303030303041424344454647010000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - Step size
0100010000003034333030303030303030303030303030303041424344454647000001000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - TX Off
0100010000003034333030303030303030303030303030303041424344454647000000010000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - Reverse 0/1
0100010000003034333030303030303030303030303030303041424344454647000000000000010000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - Channel spacing
0100010000003034333030303030303030303030303030303041424344454647000000000000000000010000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - TX DCS Normal/Reverse
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000100000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - RX DCS Normal/Reverse
0100010001003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - unknown
0100010001003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - unknown
0100010000003034333030303030303030313030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000ab07 - Offset direction 0/1-/2+
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - TX power
0100010000003031333630303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000ab07 - FM/AM
0100010001003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - unknown
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - Compander
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - Talk Around
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - TX TQ type: 0/1/2
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - RX TQ type: 0/1/2
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - DTMF Memory
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - TX CTCSS tone 00-33
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - RX CTCSS tone 00-33
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - TX DCS code 0000-ff01
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - RX DCS Code 0000-ff01
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - Busy Lock-out
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - PTT ID
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - Squelch mode
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - Optional signal DTMF/2T/5T
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - 2-Tone Memory
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - 5-Tone memory
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000e705 - Scrambler
0100010000003034333030303030303030303030303030303041424344454647000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000ab07 - Custom CTCSS 0.1Hz
```

All values are 2-byte/Word, least significant byte first (so decimal 1 = 01 00). All strings and the frequencies are ASCII encoded at one byte per character. Al values are 0 to a maximum value as per te options in the official programming software (just number the values from 0 from the top of any dropdown list in the software). All checkboxes are 0 when unchecked, 1 when checked. Custom CTCCSS is encoded as 10*Hz in Hex. Some values have a prerequisite other value, like the CTCSS/DCS settings, which need the TQ type set or the DTMF/2T/5T memory values which need the Optional signaling value set.

Unknown values are… unknown… ;) They didn’t change when altering the values for a channel in the official programming software.

Note: the *.DAT file contains a value that configures/lists the number of channels in the FRE file. It only reads that many channels, regardless of the real number of channels in the FRE file! The value is stored at offset 6908 and contains the number of channels (not the highest channel number!) in Hex (LSB first as usual).