
Subject: Has anyone reverse engineered SP0256A external serial speech ROM
Posted by [lynchaj](#) on Wed, 03 Apr 2024 15:38:49 GMT

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Hi

Has anyone reverse engineered the SP0256 external serial speech ROMs? Specifically, the SPR016, SPR032, and/or SPR128. They are 2KB, 4KB, and 16KB in capacity respectively. To the best of my knowledge, they are only available as GI/Microchip factor mask ROMs. However, they do seem very similar to the ER1400 which is an old serial electrically alterable read only memory. Although not the same because the ER1400 is read & write while the SPR016 is read-only

<https://www.tautec-electronics.de/Datenblaetter/Schaltkreise/ER1400.pdf>

The post below mentions there is a code example for the PIC1650 MCU, itself the first GI/Microchip PIC microcontroller to communicate with the ER1400 EAROM. I wonder if this code example could be adapted to modern 8-bit PIC MCUs to interface to the SP0256 emulating the SPR016. However, the functionality would be reversed but still similar.

<https://www.ccsinfo.com/forum/viewtopic.php?t=59929>

<https://developerhelp.microchip.com/xwiki/bin/view/products/mcu-mpu/8bit-pic/>

https://en.wikipedia.org/wiki/PIC_microcontrollers

<https://www.eevblog.com/forum/microcontrollers/how-does-this-old-er1400-earom-work/msg4584700/#msg4584700>

pages 212 to 220 entitled "Interfacing a PIC Microcomputer with the ER1400 EAROM" for PIC1650 to ER1400 code example in PIC assembler:

http://www.bitsavers.org/components/gi/PIC/1983_PIC_Series_Microcomputer_Data_Manual.pdf