NEC TK-80 (8 bit microcomputer system with Hex keyboard along with programmable nine function keys)

In 1977, I applied an NEC TK-80 for μPD777 breadboard system to update the ROM codes of μPD777 program ROM and pattern ROM on the breadboard (physically, SRAMs were implemented for enabling update the codes, though) as well as to make available utilizing high speed paper tape puncher and reader.
I also obtained strong assist and arrangement from automation system promotion department, IC division, and the firmware design realizes the functions above was outsourced, programmed the firmware in μPD454 EEPROM (256 x 8), and ran on breadboard properly. Four pieces of μPD5101 SRAM (256 x 4) assembled on TK-80 work as general purpose working memory.
Due to early stage of microcomputer system, the size of the memory LSIs implemented is amazingly small (256 x 4 and 256 x 8). This means that optimized system design such as minimizing the firmware size was indispensable and had to be achieved. This was the same as desktop calculator LSI design I was involved in. It is presumable that such dense design work was best fitted to Japanese who like elaboration.