

Generate combined IMG file -
second stage boot-loader and
2 firmware images

Program I2C EEPROM with the
combined IMG file

Program I2C EEPROM with the
combined IMG file

Set FX3 PMODE[2:0] lines to
I2C boot and connect to host

FX3 ROM boot-loader checks
the PMODE[2:0] lines and
loads second stage boot-loader
firmware from the EEPROM

Second stage boot-loader
reads the content at 0x3FFFF
in the EEPROM

if
content at
0x3FFFF =
0x00

Loads firmware from PRIMARY
FIRMWARE ADDRESS
(0x6000 in attached project)

if
content at
0x3FFFF =
0xFF

Loads firmware from
SECONDARY FIRMWARE
ADDRESS
(0x23000 in attached project)

Main application firmware runs
in FX3 SRAM

Firmware Update
Command

Issue 0xFB vendor command
to identify the current
firmware running

First
byte read
by 0xFB
command

If 0x00

Update the firmware in
EEPROM at SECONDARY
FIRMWARE ADDRESS

If 0xFF

Update the firmware in
EEPROM at PRIMARY
FIRMWARE ADDRESS

Toggle the content at 0x3FFFF
in the EEPROM

Device Cold Reset

