




# Software Selector Guide

| MCU Vendor            | MCU Family  | FlashPro-ARM<br>GangPro-ARM | FlashPro430<br>GangPro430 | FlashPro-CC<br>GangPro-CC | FlashPro-2000 | FlashPro-M | GangPro-M |
|-----------------------|---|-----------------------------|---------------------------|---------------------------|---------------|------------|-----------|
| Texas Instruments     | MSP430, CC430   |                             | +                         |                           |               |            |           |
| Texas Instruments     | ARM MSP432  | +                           |                           |                           |               |            |           |
| Texas Instruments     | TMS320F28xx   |                             |                           |                           | +             |            |           |
| Texas Instruments     | Cxx Wireless Solution 8051 Core                             |                             |                           | +                         |               |            |           |
| Texas Instruments     | Cxx Wireless Solution ARM Core                              | +                           |                           |                           |               |            |           |
| ST Microelectronics   | ARM STM32   | +                           |                           |                           |               |            |           |
| Active Semi           | ARM PAC5xx  | +                           |                           |                           |               |            |           |
| Analog Devices        | ARM ADuCM   | +                           |                           |                           |               |            |           |
| Infineon / Cypress    | ARM PSoC, FMxx  | +                           |                           |                           |               |            |           |
| Microchip (Atmel)     | ARM AT-SAMxx  | +                           |                           |                           |               |            |           |
| Marvel                | ARM 88MC2xx / 88MW3xx                                       | +                           |                           |                           |               |            |           |
| Maxim                 | ARM MAX 326xx   | +                           |                           |                           |               |            |           |
| Nordic Semiconductors | ARM nRFxxx  | +                           |                           |                           |               |            |           |
| NXP / Freescale       | ARM iMX, Kinetis, LPCxx                                     | +                           |                           |                           |               |            |           |
| Renesas               | ARM Synergy   | +                           |                           |                           |               |            |           |
| Silergy               | ARM MAXxx   | +                           |                           |                           |               |            |           |
| Silicon Labs          | ARM EFM32, EFR32, Sim3, EM3                                 | +                           |                           |                           |               |            |           |
| ST Microelectronics   | STM-8   |                             |                           |                           |               | +          | +         |
| Microchip (Atmel)     | AVR   |                             |                           |                           |               | +          |           |
| Microchip             | PIC   |                             |                           |                           |               | +          |           |
| Serial Flash via SPI  | Adesto, Cypress, ISSI, Macronix, Microchip, Micron, Winbond |                             |                           |                           |               | +          | +         |

# Programmer Selector Guide





| Package Name                               | Price [USD]  | Target MCUs                    | Software                       | USB-FPA<br> | XStream-<br> | XStreamPro-<br> |
|--|--------------|--------------------------------|--------------------------------|--|---|--|
| FlashPro430 – Lite BSL (*)                 | 189/--/--    | MSP430                         | FlashPro430                    | PN: USB-MSP430-FPA-LB  | -   | -  |
| FlashPro430 – Lite JTAG (*)                | 189/--/--    | MSP430                         | FlashPro430                    | PN: USB-MSP430-FPA-LJ  | -   | -  |
| FlashPro430 – Lite JTAG/BSL (*)            | 219/--/--    | MSP430                         | FlashPro430                    | PN: USB-MSP430-FPA-LJB   | -   | -  |
| FlashPro430 – Standard [ XS, X2S ]         | 299/419/619  | MSP430                         | FlashPro430                    | PN: USB-MSP430-FPA-STD   | PN: XS-FP-430   | PN: X2S-FP-430   |
| FlashPro-MSP [ XS, X2S ]                   | 359/479/679  | MSP430 / MSP432                | FlashPro430 / FlashPro-ARM     | -  | PN: XS-FP-MSP   | PN: X2S-FP-MSP   |
| FlashPro-MSP430 and CCxx MCU               | 429/--/--    | MSP430 / CCxx                  | FlashPro430 / FlashPro-CC      | PN: USB-FPA-MSP430-CC  | -   | -  |
| GangPro430 – JTAG                          | 319/--/--    | MSP430                         | GangPro430 / FlashPro430       | PN: USB-MSP430-FPA-GANG-J  | -   | -  |
| GangPro430 – JTAG / BSL [ XS, X2S ]        | 339/659/859  | MSP430                         | GangPro430 / FlashPro430       | PN: USB-MSP430-FPA-GANG-JB   | PN: XS-GP-430   | PN: X2S-GP-430   |
| FlashPro-CC – Lite (*)                     | 219/--/--    | CCxx                           | FlashPro-CC / FlashPro-ARM     | PN: FLASHPRO-CC-LITE   | -   | -  |
| FlashPro-CC – Standard [ XS, X2S ]         | 299/419/619  | CCxx                           | FlashPro-CC / FlashPro-ARM     | PN: FLASHPRO-CC-STD  | PN: XS-FP-CC  | PN: X2S-FP-CC  |
| GangPro-CC [ XS, X2S ]                     | 539/659/859  | CCxx                           | GangPro-CC / GangPro-ARM       | PN: GANGPRO-CC-STD   | PN: XS-GP-CC  | PN: X2S-GP-CC  |
| FlashPro-2000 – Lite (*)                   | 219/--/--    | TMS320C28xx                    | FlashPro-2000                  | PN: FP2000-LITE  | -   | -  |
| FlashPro-2000 – Standard [ XS, X2S ]       | 299/419/619  | TMS320C28xx                    | FlashPro-2000                  | PN: FP2000-STD   | PN: XS-FP-2000  | PN: X2S-FP-2000  |
| FlashPro-ARM – One Vendor [ XS, X2S ]      | --/459/659   | ARM Limited to One Vendor(***) | FlashPro-ARM                   | -  | PN: XS-FP-ARM-1V  | PN: X2S-FP-ARM-1V (**)   |
| FlashPro-ARM [ XS, X2S ]                   | --/569/769   | See ARM list in the website    | FlashPro-ARM                   | -  | PN: XS-FP-ARM   | PN: X2S-FP-ARM (**)  |
| GangPro-ARM – One Vendor [ XS, X2S ]       | --/909/1109  | ARM Limited to One Vendor(***) | GangPro-ARM / FlashPro-ARM     | -  | PN: XS-GP-ARM-1V  | PN: X2S-GP-ARM-1V (**)   |
| GangPro-ARM [ XS, X2S ]                    | --/1019/1319 | See ARM list in the website    | GangPro-ARM / FlashPro-ARM     | -  | PN: XS-GP-ARM   | PN: X2S-GP-ARM (**)  |
| FlashPro-M – One Vendor [ XS, X2S ]        | --/419/619   | Limited to One Vendor (***)    | FlashPro-M                     | -  | PN: XS-FP-M-1V  | PN: X2S-FP-M-1V  |
| FlashPro-M [ XS, X2S ]                     | --/529/729   | Serial Flash, STM-8, PIC, AT   | FlashPro-M                     | -  | PN: XS-FP-M   | PN: X2S-FP-M   |
| GangPro-M – One Vendor [ XS, X2S ]         | --/759/969   | Limited to One Vendor (***)    | GangPro-M / FlashPro-M         | -  | PN: XS-GP-M-1V  | PN: X2S-GP-M-1V  |
| GangPro-M [ XS, X2S ]                      | --/869/1069  | Serial Flash, STM-8            | GangPro-M / FlashPro-M         | -  | PN: XS-GP-M   | PN: X2S-GP-M   |
| Universal FlashPro-X Programmer [ XS,X2S ] | --/719/919   | Any above                      | Any Flash-.. Above             | -  | PN: XS-FP-X   | PN: X2S-FP-X   |
| Universal GangPro-X Programmer [ XS,X2S ]  | --/1119/1319 | Any above                      | Any Flash-.. and Gang-.. Above | -  | PN: XS-GP-X   | PN: X2S-GP-X   |

Note: (\*) Lite version – software without access to DLLs, serialization and script files.

(\*\*) Supports Serial Flash programming via JTAG/SWD and MCU using FlashPro-ARM/GangPro-ARM software or via SPI using FlashPro-M/GangPro-M software

(\*\*\*) Limited to one Vendor e.g. TI only, NXP only etc.

# Programming Adapters

| Features  | USB-FPA<br> | XStream-Iso<br> | XStreamPro-Iso<br>  |
|---|---|--|---|
| Suffix in the Product Part Number                       | none e.g. FP-ARM  | XS- e.g. XS-FP-ARM   | X2S- e.g. X2S-FP-ARM  |
| Data transfer speed to / from Target Device             | Up to 100 kbytes/s  | Up to 1 Mbytes/s   | Up to 1 Mbytes/s  |
| JTAG / SWD Hi Speed                                     | Fixed ~ 1.5MHz  | Prog. 1-20MHz  | Prog. 1-20MHz   |
| JTAG / SWD Med / Low Speed                              | 800kHz / 400kHz   | 800kHz / 400kHz  | 800kHz / 400kHz   |
| Supported Comm. Interfaces (vary by software)           | JTAG, cJTAG, SWD, SBW, BSL, DD, UART ..   | JTAG, cJTAG, SWD, SBW, BSL, DD, SPI, UART ..   | JTAG, cJTAG, SWD, SBW, BSL, DD, SPI, UART ..  |
| DLL for debugging                                       | MSP430  | MSP430, ARM (IAR EW-ARM)   | MSP430, ARM (IAR EW-ARM)  |
| Image Memory ( for Standalone, Security )               | -   | -  | 24 MB Flash   |
| RAM Buffer for real time monitoring ( current, voltage) | -   | 32 kB RAM  | 32 kB RAM   |
| Galvanic Isolation between PC and Target Device         | -   | YES  | YES   |
| Vcc and I/O range                                       | 1.65 - 4.0 V  | 1.65 - 4.0 V   | 1.2 - 4.0 V   |
| Vcc supplied from Adapter to Target Device              | 1.65-4.0 V /up to 200mA   | 1.65-4.0 V /up to 200mA  | 1.2-4.0 V /up to 200mA  |
| Icc Current measurements                                | -   | 20 uA – 200 mA   | 50 nA – 200 mA  |
| Communication via USB 2.0 Full Speed                    | YES   | YES  | YES   |
| Communication via LAN (Ethernet)                        | -   | -  | YES   |
| Adapter powered from                                    | USB +5V   | USB +5V  | USB +5V or PoE +48V   |
| I/O lines in 3-state                                    | YES. Pullup 1M to Vcc   | YES. Pullup 1M to Vcc  | YES   |
| Power line in 3-state                                   | -   | -  | YES   |
| Up to 64 adapters can be connected to one PC            | YES   | YES  | YES   |
| FCC / CE test certification                             | YES   | YES  | YES   |
| OS  | Windows™ 32-b applications  | Windows™ 32,64-b applications, Linux   | Windows™ 32,64-b applications, Linux  |
| Size  | 79 * 42 * 21 mm   | 79 * 42 * 21 mm  | 79 * 42 * 21 mm   |