# ICP Family Programmers: Brief Datasheet

## Contents



## 1 Comparison

| ## | *Parameter* | *ICP2-GANG(G3)* | *ICP2-COMBO(G3)-4* | *ICP2-COMBO(G3)-8* | *ICP2-COMBO(G3)-12* | *ICP2(G3)* | *ICP2-Portable(G3)* | *ICP2-ISO(G3)* | *ICP2-LAN(G3)* |
|---|---|---|---|---|---|---|---|---|---|
| | |  |  |  |  |  |  |  |  |
| | **General Features** | | | | | | | | |
| 1. | Primary use | Heavy mass production | Heavy mass production | Heavy mass production | Heavy mass production | Mass production | Service | Mass production | Mass production |
| 2. | Dimensions (w/o wings and connectors) | 195x110x68mm | 215x118x44 | 215x118x68 | 215x118x90 | 175x85x35mm | 145x82x28mm | 78x60x27mm (small size) | 78x60x30mm (small size) |
| 3. | Number of channels | 4 | 4 | 8 | 12 | 1 | 1 | 1 | 1 |
| 4. | Mechanical | Plastic enclosure | Metal, open frame | Metal, open frame | Metal, open frame | Plastic enclosure | Plastic enclosure | Metal, closed frame, DIN rail and wall mountable | Metal, closed frame, DIN rail and wall mountable |
| 5. | GANG chain connection | Yes, till 64 channels | Yes, till 64 channels | Yes, till 64 channels | Yes, till 60 channels | - | - | Yes, till 16 channels | Yes, till 16 channels |
| 6. | Environment storage | Flash 32MByte (per channel) | Flash 32MByte (per channel) | Flash 32MByte (per channel) | Flash 32MByte (per channel) | Flash 32MByte | Flash 32MByte | Flash 32MByte | Flash 32MByte |
| 7. | Number of environments | 512 (per channel) | 512 (per channel) | 512 (per channel) | 512 (per channel) | 512 | 6 | 512 | 512 |
| | | | | | | | | | |
| | **Advanced Features** | | | | | | | | |
| 8. | Secure programming | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) |
| 9. | Gap Eliminator ™ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 10. | DLL / Advanced Command Line | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) |
| 11. | High-level RS-232 | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) | Yes (optional) |
| 12. | Fully standalone serialization | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 13. | Fully standalone calibration | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 14. | OEM solution center | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

# Softlog Systems (2006) Ltd.

| ## | *Parameter* | *ICP2-GANG(G3)* | *ICP2-COMBO(G3)-4* | *ICP2-COMBO(G3)-8* | *ICP2-COMBO(G3)-12* | *ICP2(G3)* | *ICP2-Portable(G3)* | *ICP2-ISO(G3)* | *ICP2-LAN(G3)* |
|---|---|---|---|---|---|---|---|---|---|
| | |  |  |  |  |  |  |  |  |
| 15. | Opto-relay barrier | - | Yes | Yes | Yes | - | - | - | - |
| 16. | Connection via Internet | - | Yes | Yes | Yes | - | - | - | Yes |
| 17. | Non-secure counter | - | - | - | - | - | Yes | - | - |
| 18. | Reported as ICP2 for plug-and-play replacement in customer systems | - | - | - | - | Native | - | Yes | Yes |
| | | | | | | | | | |
| | **Communication Interface** | | | | | | | | |
| 19. | USB interface | Yes | Yes (isolated) | Yes (isolated) | Yes (isolated) | Yes | Yes | Yes (isolated) | - |
| 20. | LAN interface | - | Yes (isolated) | Yes (isolated) | Yes (isolated) | - | - | - | Yes (isolated) |
| 21. | RS-232 interface/connector | D-type 9F | D-type 9F (isolated) | D-type 9F (isolated) | D-type 9F (isolated) | D-type 9F | - | Header-16, 2.54mm (isolated) | Header-16, 2mm (isolated) |
| | | | | | | | | | |
| | **Wired Interface** | | | | | | | | |
| 22. | Non-isolated GO/PASS/FAIL on D-type 15 | Yes | - | - | - | Yes | Yes | Yes | Yes |
| 23. | Isolated GO/PASS/FAIL | - | Yes (per channel) | Yes (per channel) | Yes (per channel) | - | - | Yes | Yes |
| 24. | Isolated environment switch | | Yes | Yes | Yes | - | - | Yes | Yes |
| | | | | | | | | | |
| | **Target, User Interface** | | | | | | | | |
| 25. | Target connector | D-type 15F (per channel) | DIN-48 (1 per 4 channels) | DIN-48 (1 per 4 channels) | DIN-48 (1 per 4 channels) | D-type 15F | D-type 15F | D-type 15F | D-type 15F |
| 26. | PASS and FAIL LEDs | Yes (per channel) | Yes (per channel) | Yes (per channel) | Yes (per channel) | Yes | Yes | Yes | Yes |
| 27. | POWER, ENVIRONMENT and GO button | - | - | - | - | - | Yes | - | - |
| | | | | | | | | | |
| | **Electrical Parameters** | | | | | | | | |
| 28. | Power from USB only | - | - | - | - | Yes | Yes | Yes | - |
| 29. | Battery powered | - | - | - | - | - | Yes | - | - |
| 30. | VDD current limit | 250mA (per channel) | 250mA (per channel) | 250mA (per channel) | 250mA (per channel) | 250mA | 100mA | 250mA | 250mA |
| 31. | VDD and VPP hardware current limit | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

# 2 How to Order


1 Programmer P/N:
**ICP2(G3)** = ICP2(G3)
**ICP2PORT(G3)** = ICP2-Portable(G3)
**ICP2ISO(G3)** = ICP2-ISO(G3)
**ICP2LAN(G3)** = ICP2-LAN(G3)
**ICP2GANG(G3)** = ICP2-GANG(G3)
**ICP2COMBO(G3)-4** = ICP2-COMBO(G3)-4
**ICP2COMBO(G3)-8** = ICP2-COMBO(G3)-8
**ICP2COMBO(G3)-12** = ICP2-COMBO(G3)-12

2 **D** = DLL/Command Line/Advanced Command line Support

3 **S** = Secure Programming Support

4 **FAM1** = 1 family device support
…

**FAM2** = 2 families device support
**FAM5** = 5 families device support
…

**ALL** = All currently available permanently activated families and the next 8 future families to be added by Softlog Systems

Examples:
**ICP2COMBO(G3)-4-DS-FAM1** = 4 channel ICP2-COMBO(G3) programmer with DLL/Command line/ Advanced Command line, Secure Programming and 1 family device support.
**ICP2(G3)-D-FAM4** = Single-channel ICP2(G3) programmer with DLL/Command line/Advanced Command line and 4 families device support.
**ICP2ISO(G3)-DS-ALL** = Single-channel ICP2-ISO(G3) programmer featuring DLL/Command line/Advanced Command line, along with Secure Programming and all permanently activated currently available families, including 8 next future families to be added by Softlog.

# 3 Definitions

| ## | *Definition* | *Description* | *Example* |
|---|---|---|---|
| 1. | Family,<br>Family/Algorithm,<br>**FAM** | A group of devices/MCUs with the same or similar programming algorithm, represented as a family number.<br>For a complete list of families supported by Softlog Systems see "Families/Algorithms" list in document:<br>https://softlog.com/documents/Device%20list.pdf | Family 68 "STM32L4/G4/G0/WB/WL/C0/U0" |
| 2. | Programmer with **ALL** families | A programmer with all permanently activated **currently** available families and **8 next future** families to be added by Softlog Systems | Programmer purchased in Apr-2025: all families till number 123 are permanently activated, all families till number 115 are currently supported |
| 3. | Permanently Activated Families | Forever activated families. Expansion by new devices of existing family is free of charge | Full part number (P/N) for ICP2(G3) programmer with 5 families to be permanently activated: ICP2(G3)-FAM5 |
| 4. | Temporarily Activated Families | Families activated for predefined number of programming cycles controlled by a down counting PASS counter. Once the PASS counter reaches zero all temporary activated families are disabled for further programming | New programmers come with all temporarily activated families; initial PASS counter value is 500 |
| 5. | DLL / Command Line / Advanced Command Line Support (**D**) | Feature which allows to operate Softlog programmers from a user application using ICP DLL or/and ICP Command Line / Advanced Command Line. Additionally, it enables high-level RS-232 interface for advanced standalone operations without PC | DLL / Command Line / Advanced Command Line support for ICP2(G3) with 5 families:<br>ICP2(G3)-**D**-FAM5 |
| 6. | Secure Programming Support (**DS**) | Softlog's Secure Programming feature protects the unique firmware that controls your product. It adds multiple layers of protection to your business-critical intellectual property, dramatically reducing the risk of stolen firmware during production.<br>This feature always comes with D. See link below for more information: https://softlog.com/secure-programming/ | Secure Programming support for ICP2(G3) with 5 families:<br>ICP2(G3)-**DS**-FAM5 |

# 4 Activation Instruction

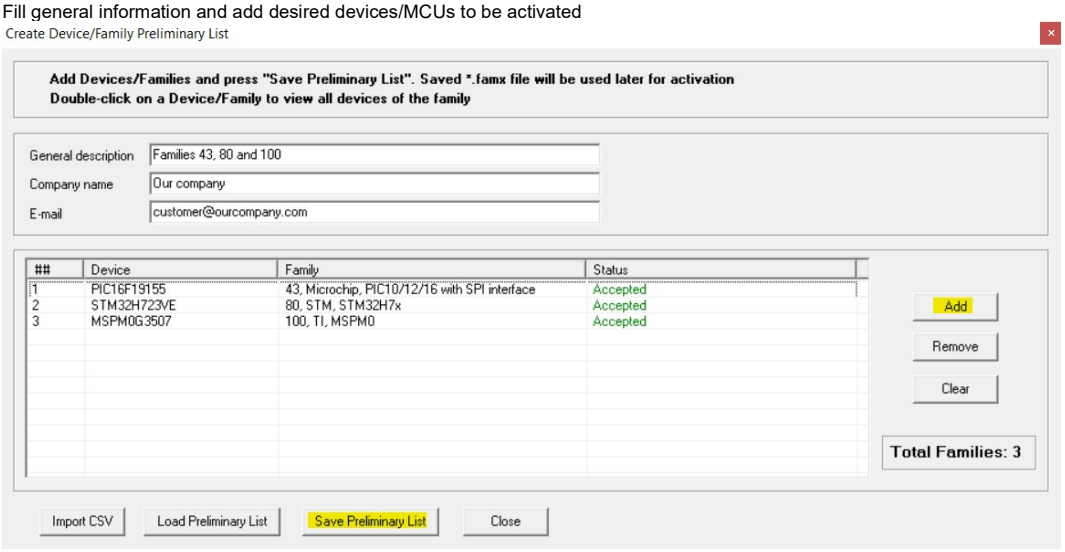
- The instruction below is applicable for all Softlog Systems G3 programmers: ICP2(G3), ICP2-GANG(G3), ICP2-COMBO(G3)-4/8/12, ICP2-Portable(G3), ICP2-ISO(G3) or ICP2-LAN(G3)
- Minimum software and firmware:
  - ICP for Windows (ICP Family GUI Software) 16.6.1a 6-Apr-25
  - firmware 38.6 (comes with software 16.6.1a 6-Apr-25)
- Purchased programmers with **FAM3** or **FAM5** suffix come with 3 or 5 “spare” families respectively (spare families = “families without distinctive family numbers”), activation procedure below (Step 1 – Step 4) should take place.
- Purchased programmers with **ALL** suffix are ready for use and **don’t** require activation

## Step 1: Create Device/Family Preliminary List for Activation (Offline)

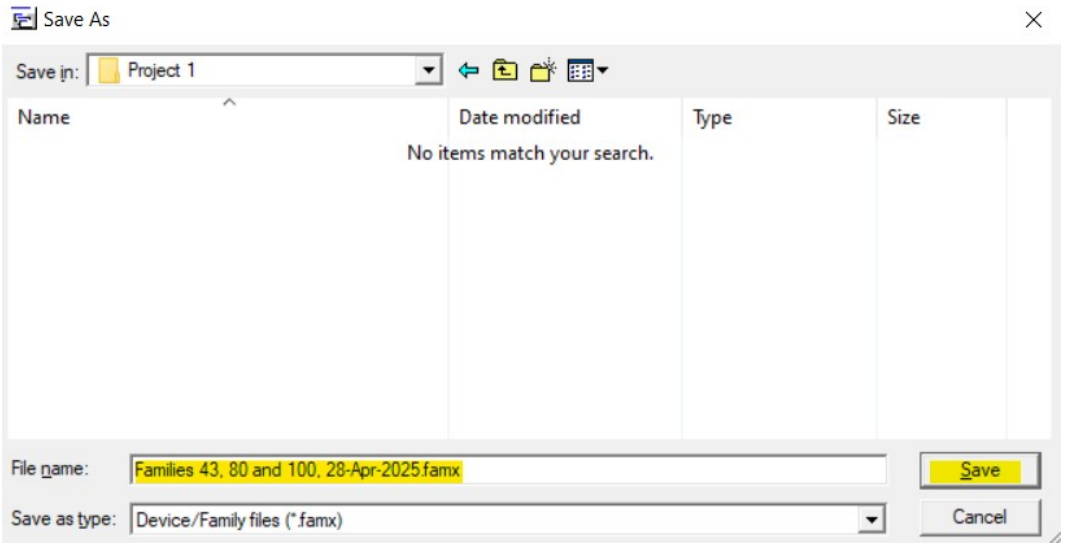
1. Run “ICP for Windows” software with ICP family programmer connected: ICP2, ICP2-GANG, ICP2-COMBO, ICP2-Portable, ICP2-ISO or ICP2-LAN
   Note: “offline” operation, no connected programmer is required

2. If not done yet: “Options → Create Device/Family Preliminary List for Activation (Offline)”. If it’s already done then go to Step 2 below

3. Fill general information and add desired devices/MCUs to be activated



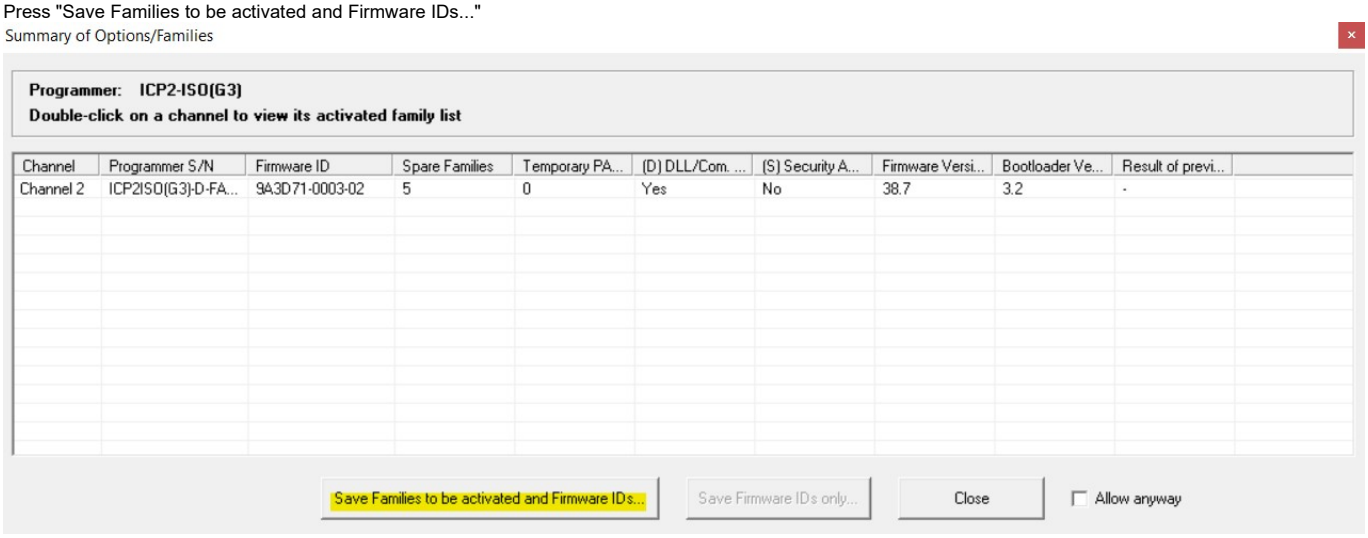

4. Press “Save Preliminary List” and then “Save”



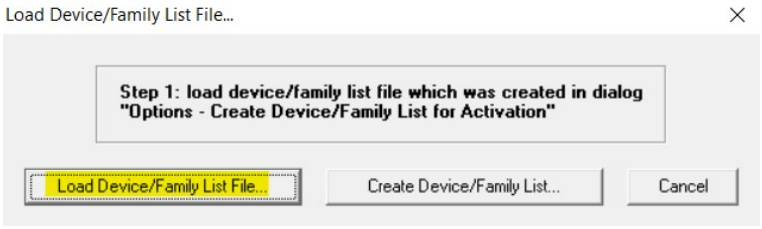

5. Press “Close”

## Step 2: Collect Firmware IDs and send to Softlog Systems

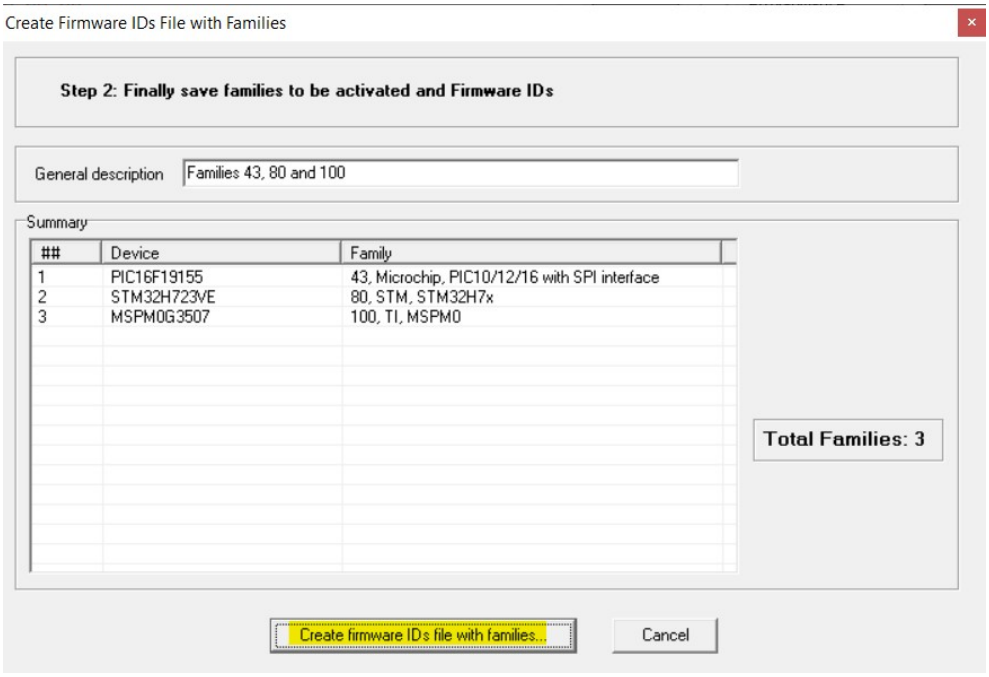
6. If not done yet: connect ICP programmer
7. Select "Options → Summary of Options/Families, Collect My Firmware IDs"
8. Press "Save Families to be activated and Firmware IDs..."




9. Press “Load Device/Family List File…”




10. Select previously saved *.famx file and press “Open” → Summary screen appears




11. Press “Create firmware IDs file with families…” and save (example: “FAM3_1CH_28-Apr-2025_9A3D71.txt”)

12. Send the saved file to activation@softlog.com

### Step 3: Receive HEX file for Activation from Softlog Systems

### Step 4: Activate the Desired Support

13. Unzip received HEX file and copy to ICP software directory as follows:
<your drive>:\Softlog**IcpWin\Option Activation**

14. Run “ICP for Windows” software with the ICP family programmer connected
IMPORTANT: ICP2-GANG and ICP2-COMBO programmers should be defined as “ICP2-GANG/ICP2-COMBO” with **all** channels enabled (**not** single channel)

15. Select "Options → Activate Options/Families..."

16. Select the HEX file and press "Open"

17. Follow on-screen instructions

# 5 Documentation

| ## | *Programmer* | *Documentation* |
|---|---|---|
| 1. | ICP2-GANG(G3) | https://softlog.com/product/icp2gangg3/#documents |
| 2. | ICP2-COMBO(G3)-4 | https://softlog.com/product/icp2combog3-4/#documents |
| 3. | ICP2-COMBO(G3)-8 | https://softlog.com/product/icp2combog3-8/#documents |
| 4. | ICP2-COMBO(G3)-12 | https://softlog.com/product/icp2combog3-12/#documents |
| 5. | ICP2(G3) | https://softlog.com/product/icp2g3/#documents |
| 6. | ICP2-Portable(G3) | https://softlog.com/product/icp2-portableg3/#documents |
| 7. | ICP2-ISO(G3) | https://softlog.com/product/icp2-isog3/#documents |
| 8. | ICP2-LAN(G3) | https://softlog.com/product/icp2-lang3/#documents |

# 6 History

- May-2025: original document

# 7 Warranty

Softlog Systems (2006) Ltd. warrants this product against defects in materials and workmanship for a period of 1 (one) year. This warranty will not cover programmers that, in the opinion of Softlog Systems, have been damaged due to abuse, improper use, disassembly, replacement of parts or attempted repair by anyone other than an authorized Softlog Systems service technician.

Softlog Systems emphasizes that Secure Programming software is intended to reduce a risk but can't completely prevent unauthorized reconstruction of your HEX file or/and unauthorized breach of limitation of devices to be programmed. In no event shall Softlog Systems be liable to you for any loss due to reconstruction of the HEX file or breaching limitation of the programmed devices

Softlog Systems shall not be liable for any indirect, incidental, or consequential damages, regardless of whether liability is based upon breach of warranty, negligence, strict liability in tort, or any other theory, Softlog Systems will never be liable in an amount greater than the purchase price of the products described by this express warranty. No agent, distributor, salesperson, or wholesale or retail dealer has the authority to bind Softlog Systems to any other affirmation, representation, or warranty concerning these goods.

# 8 Contact

Softlog Systems (2006) Ltd.

6 Hayotzrim St. Or-Yehuda 6021820 Israel

Phone: 972-3-9515359
Fax: 972-3-9527520
Web: www.softlog.com
E-mail: sales@softlog.com, support@softlog.com