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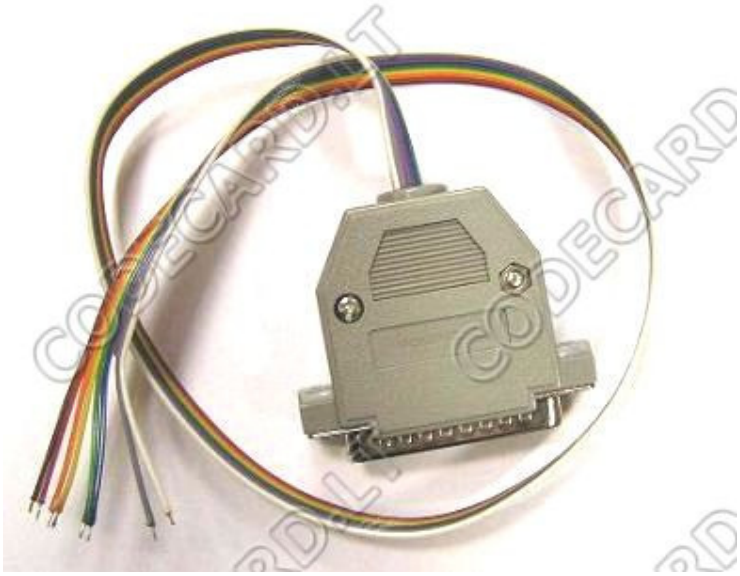
CARPROG

S4.4 CarProg Motorola HC11 Programmer manual

For Motorola MPU MC68HC11 series programming use A10 cable.



You can recognize Motorola (Freescale) MPU by maskset:

This MPU maskset is 4C11W.

- First digit "4" is mask series number, in practice can be 0, 1, 2, 3, 4 or 5, but for programming is not important.

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- Second 4 symbols is always letter + digit + digit + letter: this is processor maskset or encrypted processor type. All processor marking can by custom made, like "FORD S2234234" or SC2323454 but always you can find maskset on Motorola or Freescale processors.

Before programming always select right processor type according maskset.

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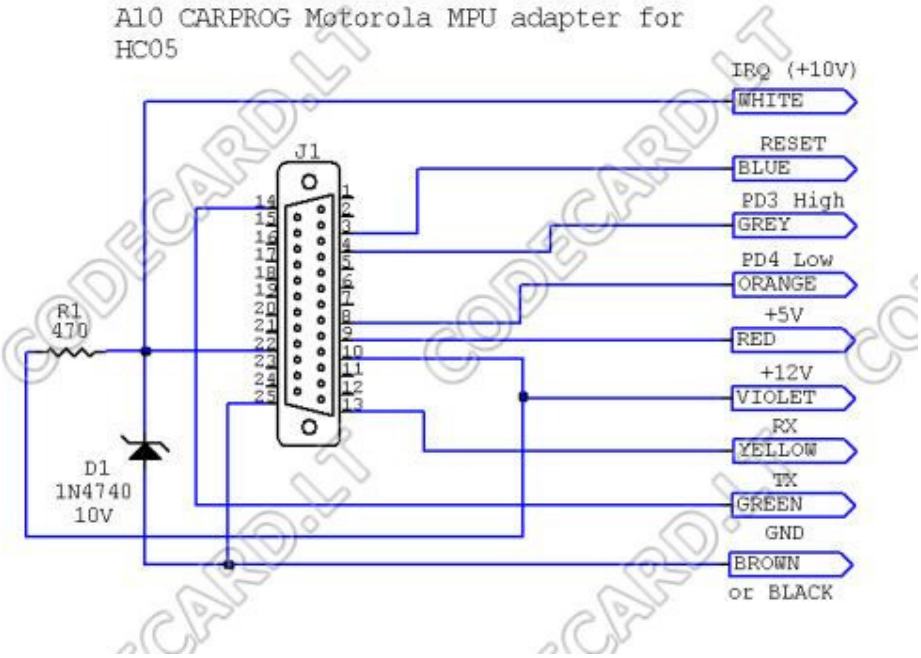
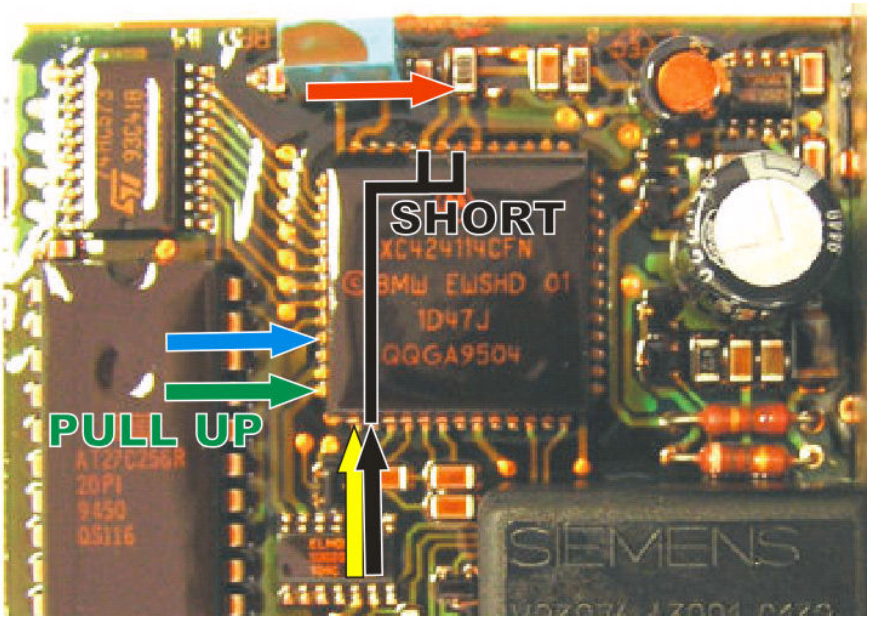
How to connect CarProg programmer:
For HC11 programming use A10 cable 7 color wires:

YELOW – communication signal from MPU;
GREEN – communication signal to MPU;
BLUE – Reset signal to MPU;
ORANGE – MODB signal to MPU, low level;
BROWN – GND (ground);
RED – switched +5V;
VIOLET - switched +12V;





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Troubleshooting:

CarProg ERROR messages:

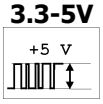
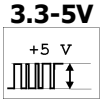
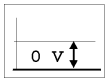
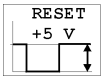
- **Communication error** - no communication between CarProg and Motorola processor - check MPU type, try to select quartz frequency manualy.

MC68HC11 processor security bit in many case is ON (especially in car radios), and when you try to read MPU internal memory first time, MPU will clear security bit itself. But if security bit was ON, after first try to read HC11, processor internal EEPROM will by lost.
Don't try to read HC11 MPU if you not sure that you have file for EEPROM recovery.

To understand better onboard MPU programming problems, you can use table with right programming signals and voltages, described in table.

If you can't read or write MPU with CarProg, check:

- did you was select right MPU type;
- did quartz resonator Q is the same in circuit board and in CarProg options;
- did all programming signals have right form and voltage;

	Yellow TXD From MPU	Green RXD To MPU	Orange LOW MODB	Blue RESET
All HC11 MPU	**Impulse 3.3-5V** 	**Impulse 3.3-5V** 	**0 V** 	

If all conditions are OK, ask support@codecard.lt

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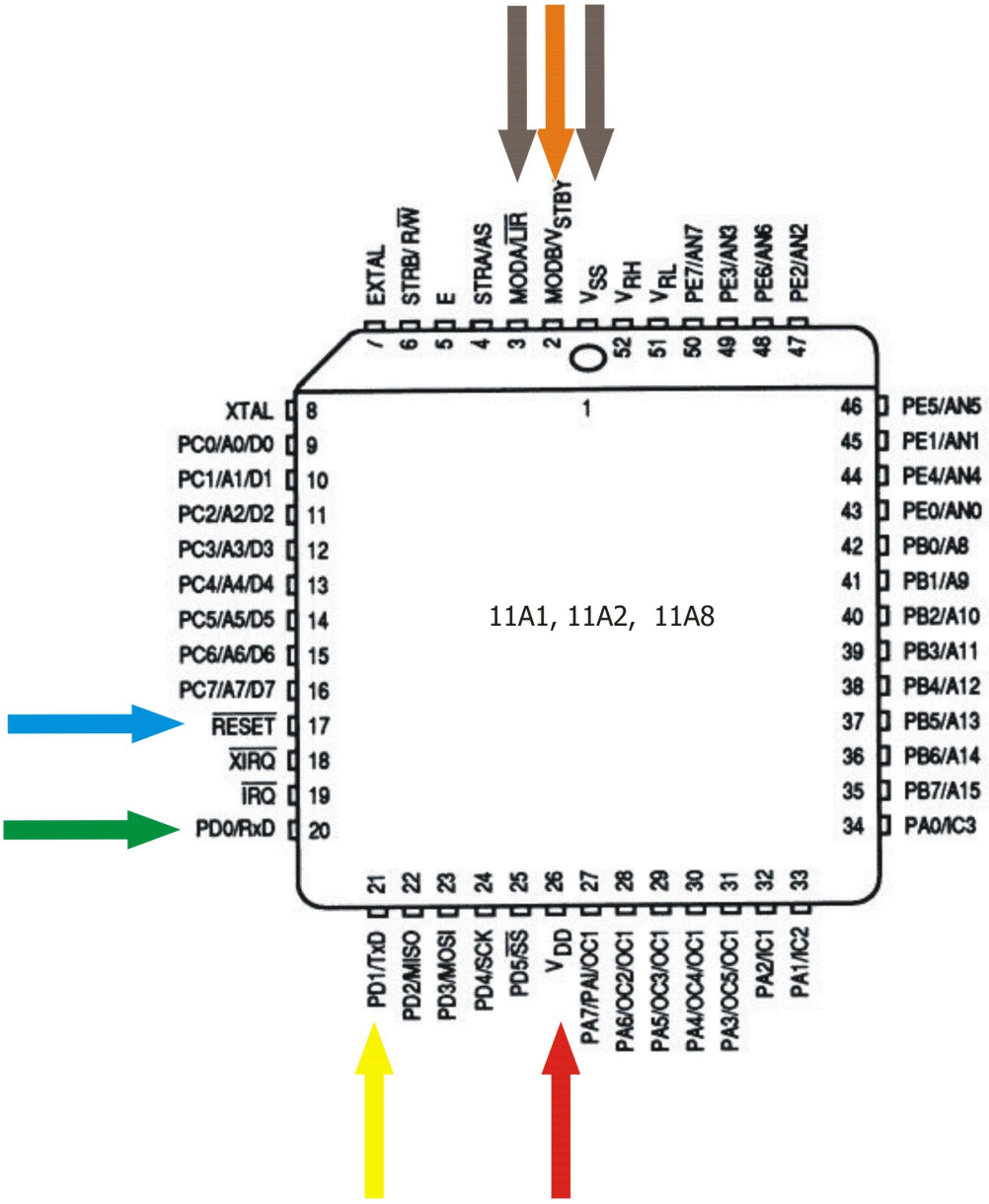
1. MC68HC11A0, MC68HC11A1, MC68HC11A8



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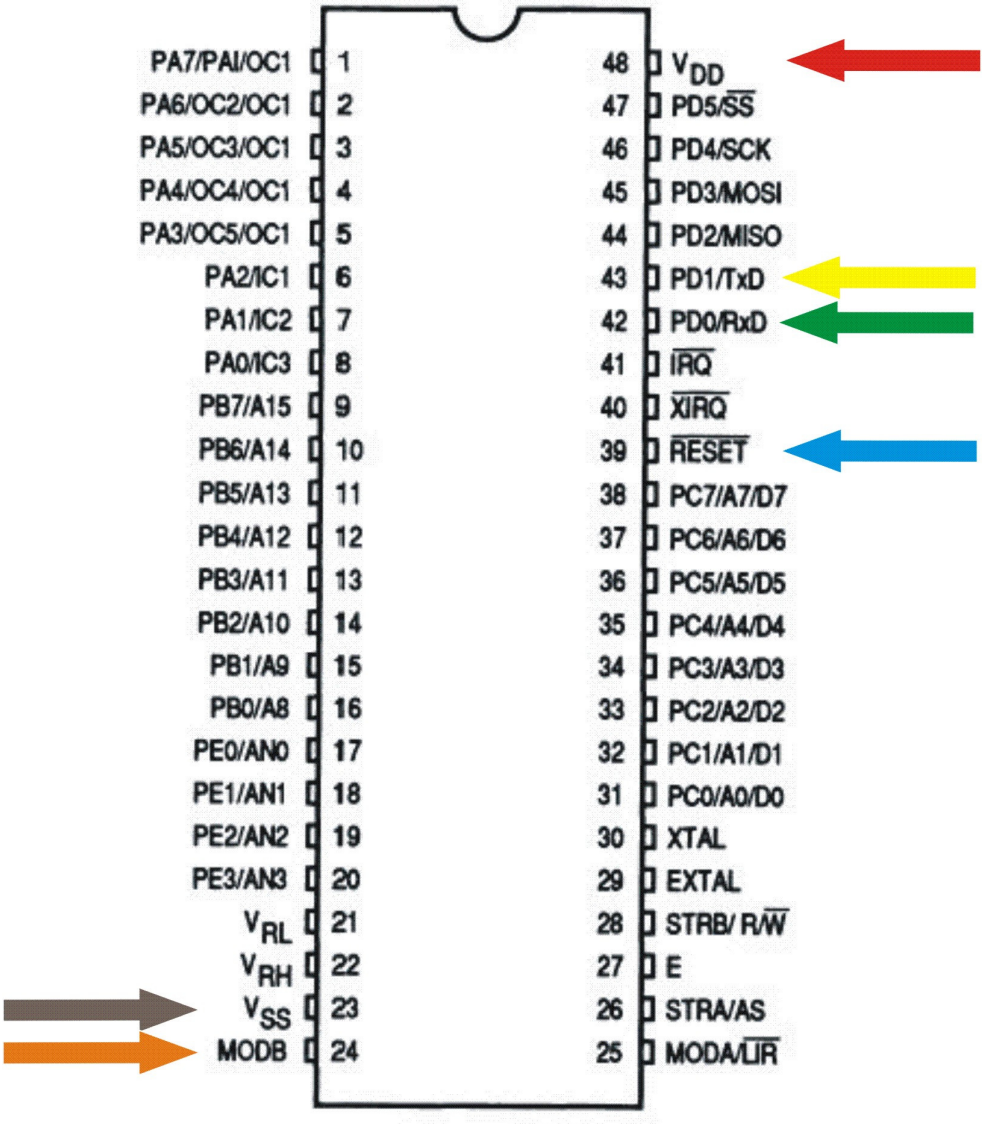

MPU	Mask Set
MC68HC11A0	B84T
MC68HC11A1	C11W
	A38P
	A49N
	B46E
	B95T
	B96D

MPU	Mask Set
MC68HC11A8	B65H

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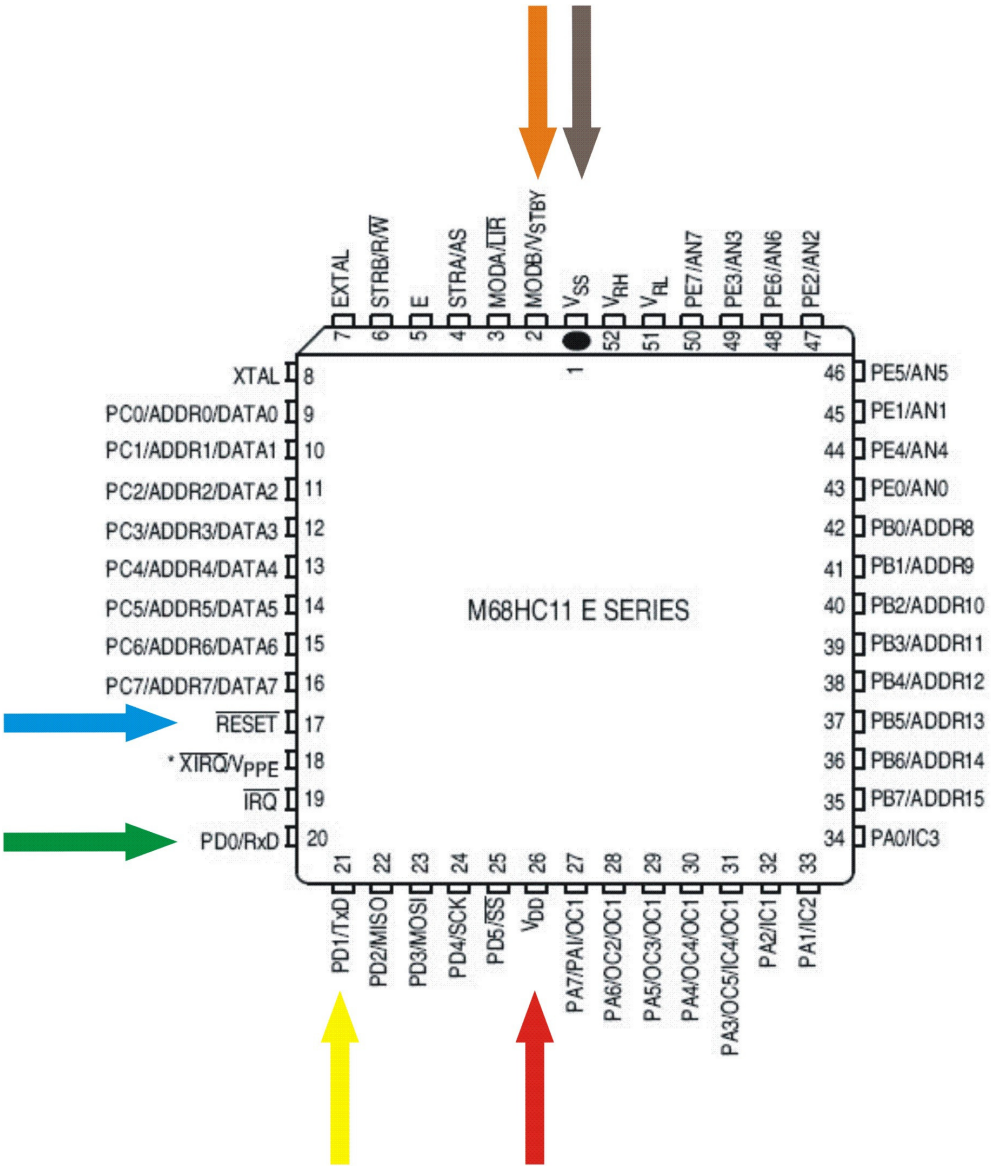
2. MC68HC11E9, MC68HC711E9, MC68HC11E20



MPU	Mask Set
MC68HC11E1	C91F
	B60R
MC68HC11E9	C83W
	C96K
	D35E
	D82R
	F96J
	C96N
MC68HC11E20	E22B
	E82K
	H89E
	K82H

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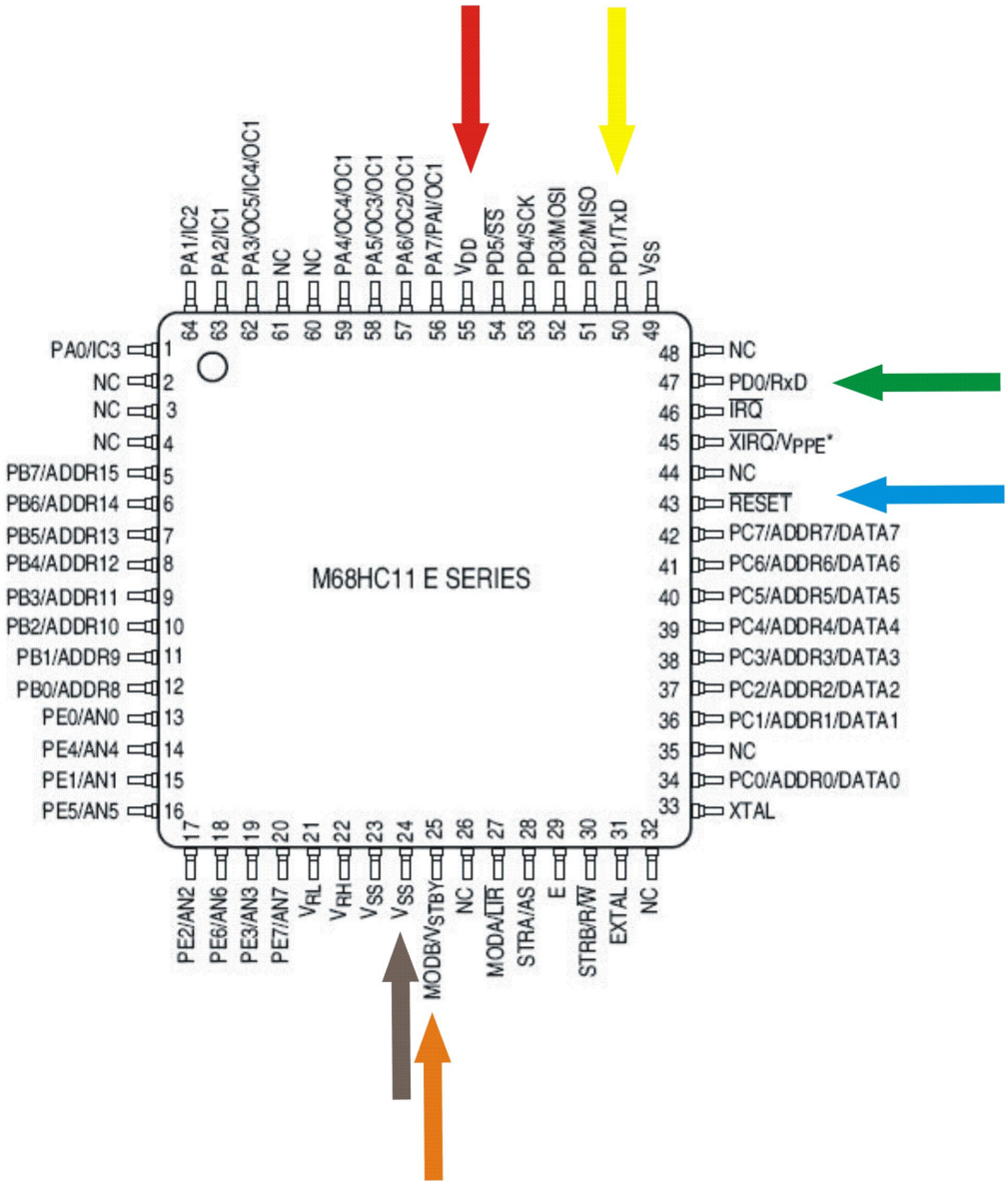
MC68HC711E9	E50W H50W K81H
MC68HC711E20	D43R G59F H19S



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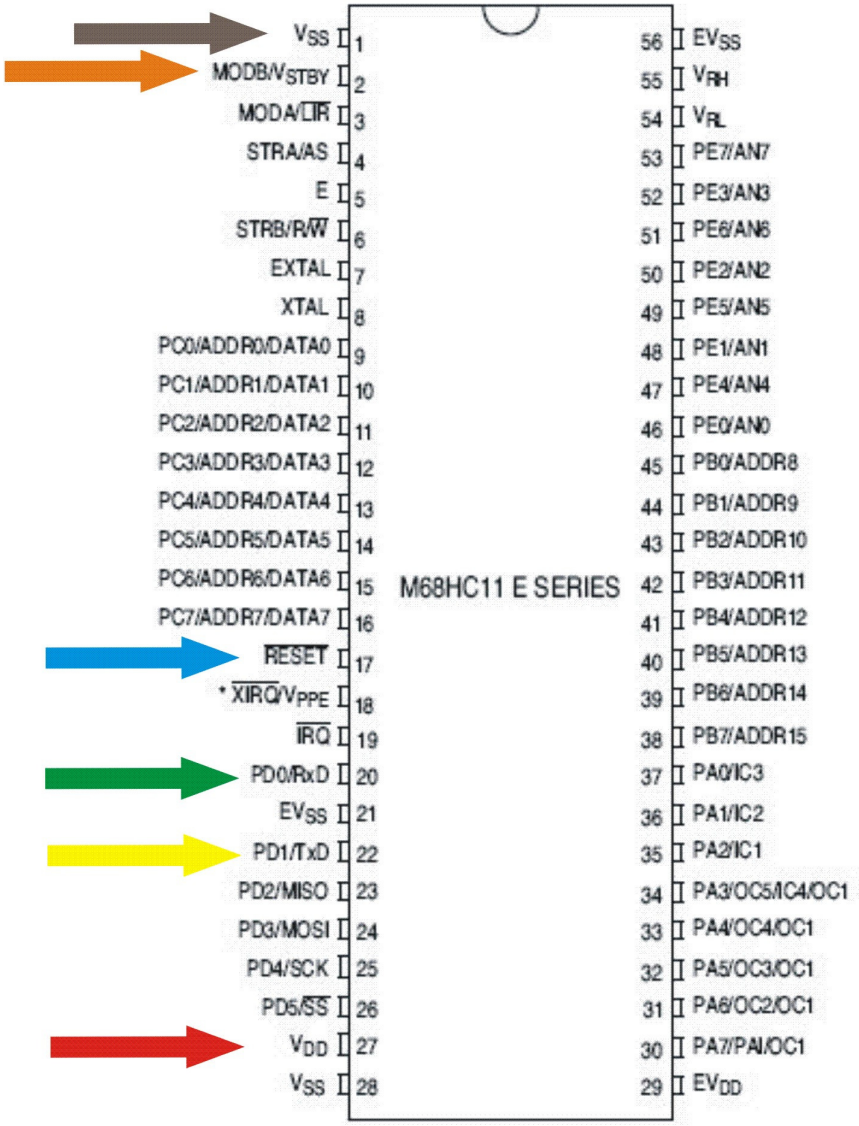

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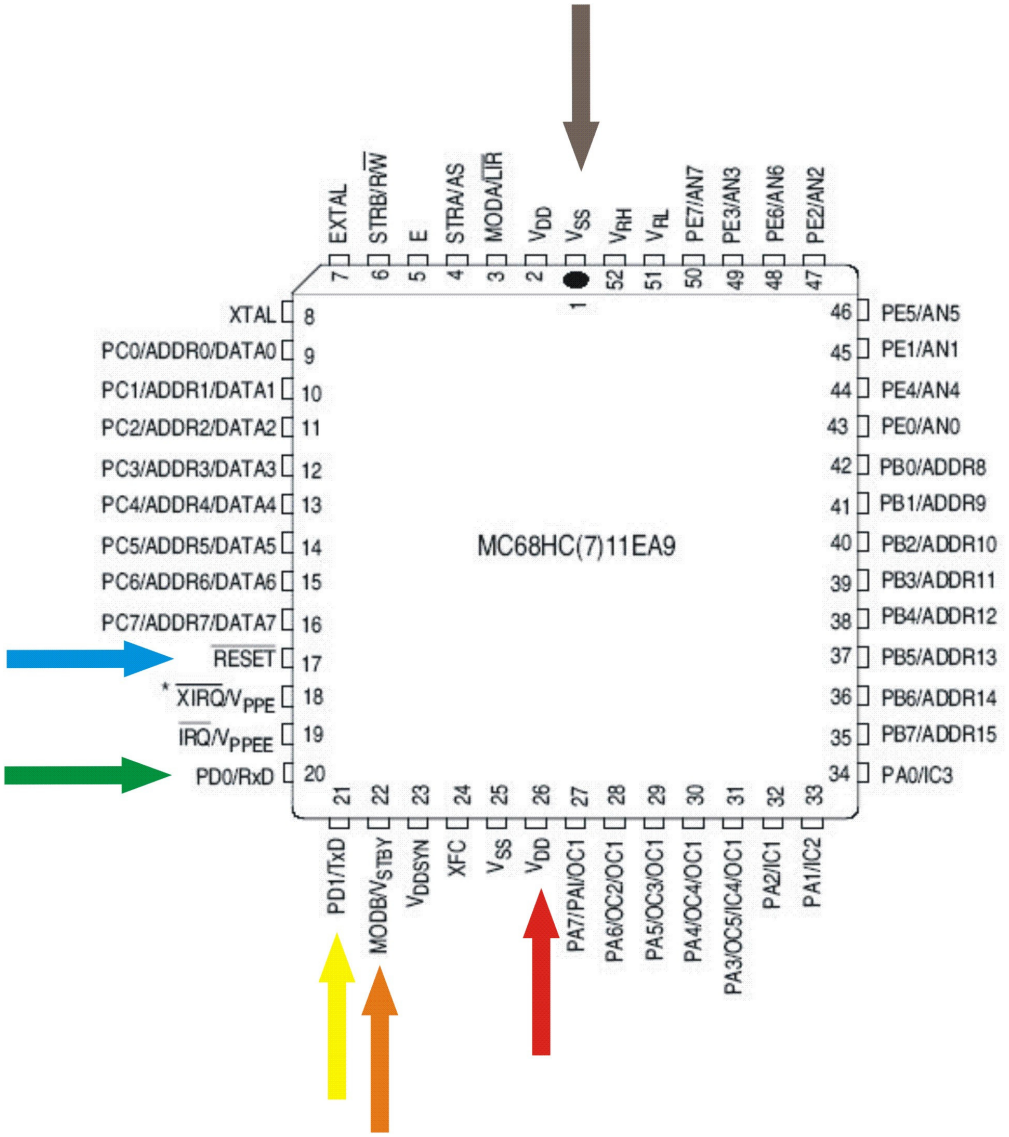
3. MC68HC11EA9, MC68HC711EA9

MPU	Mask Set
MC68HC11EA9	D47J
	D46J



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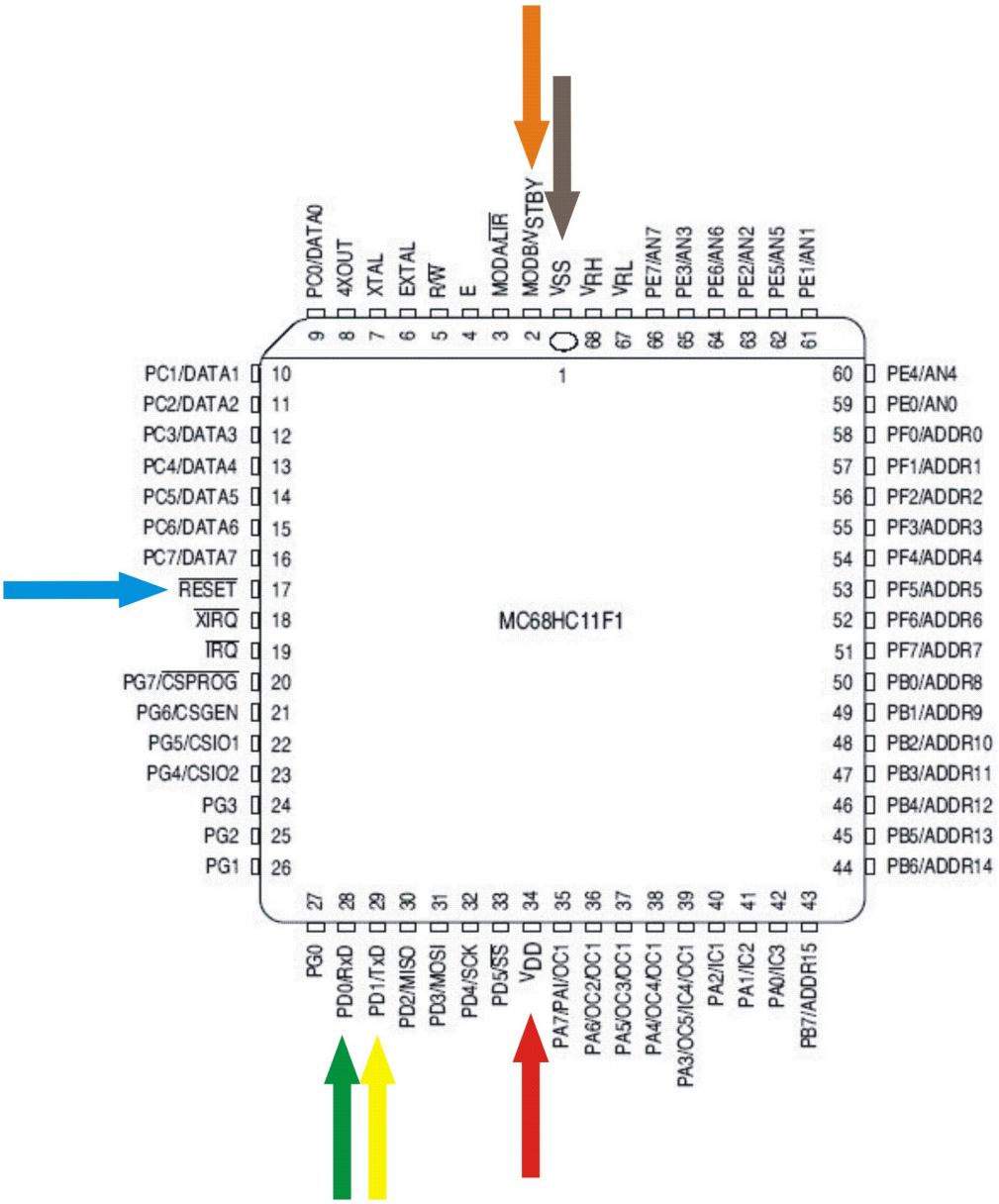
4. MC68HC11F1, MC68HC711F1

MPU	Mask Set
MC68HC11A8	B77M
	C15J
	C94R
	E61H
	E87J
	F37E



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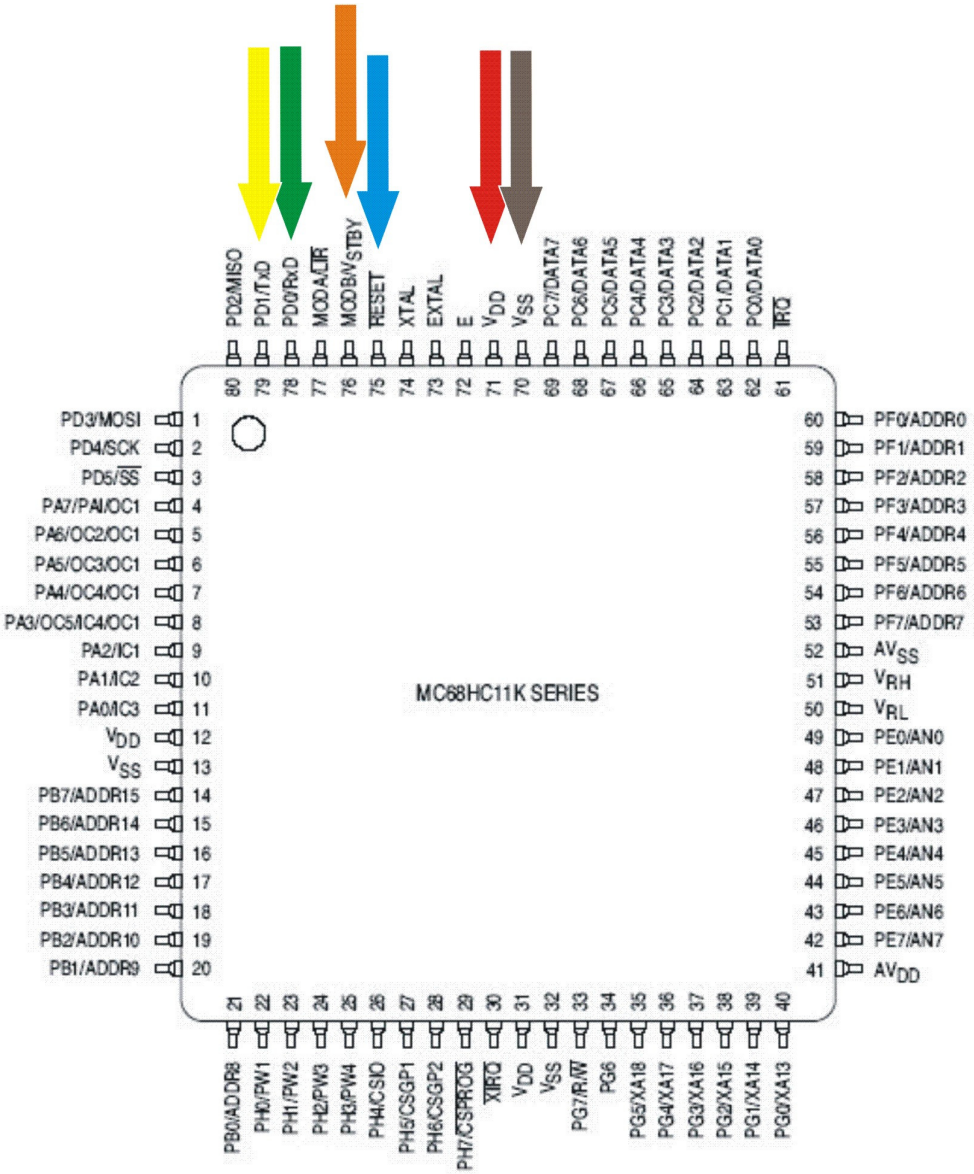
5. MC68HC11K4, MC68HC711K4

MPU	Mask Set
MC68HC11K4	D43F
	E62H
	E75J
	K00W
MC68HC711K4	D67F
	K54X



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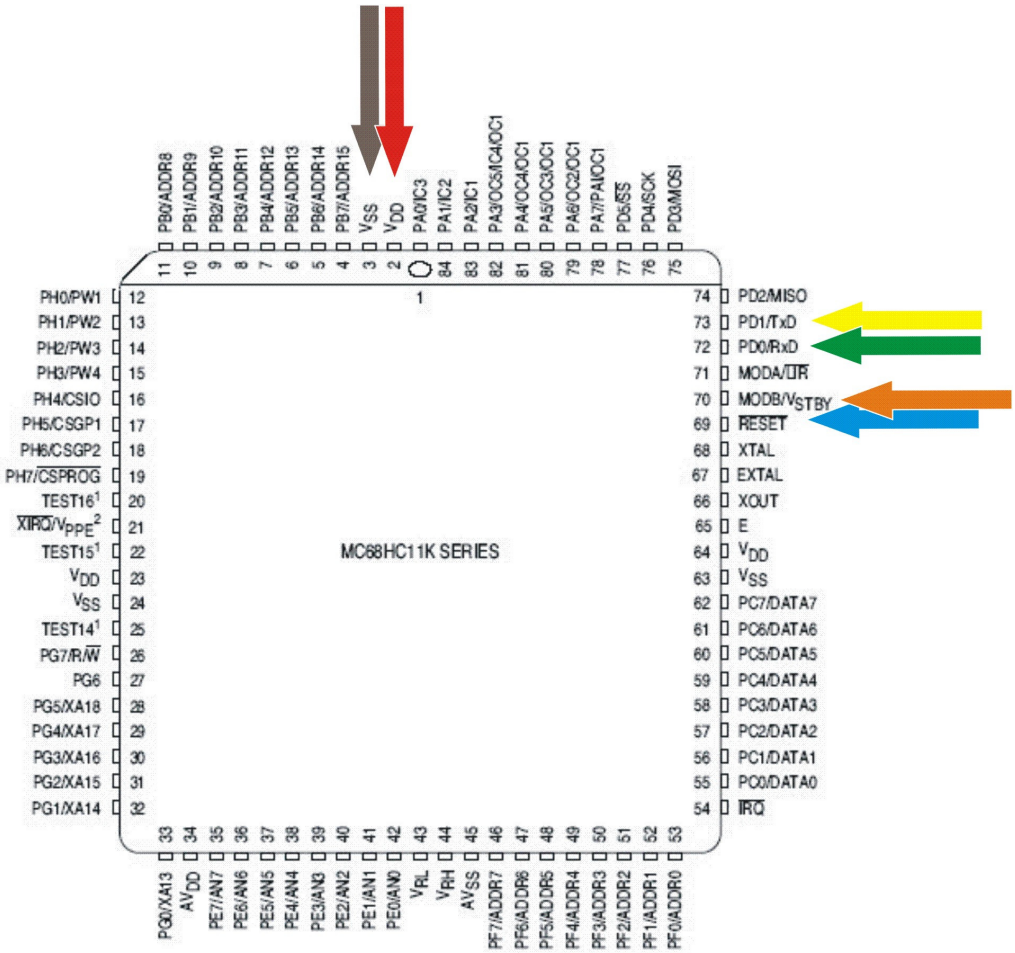

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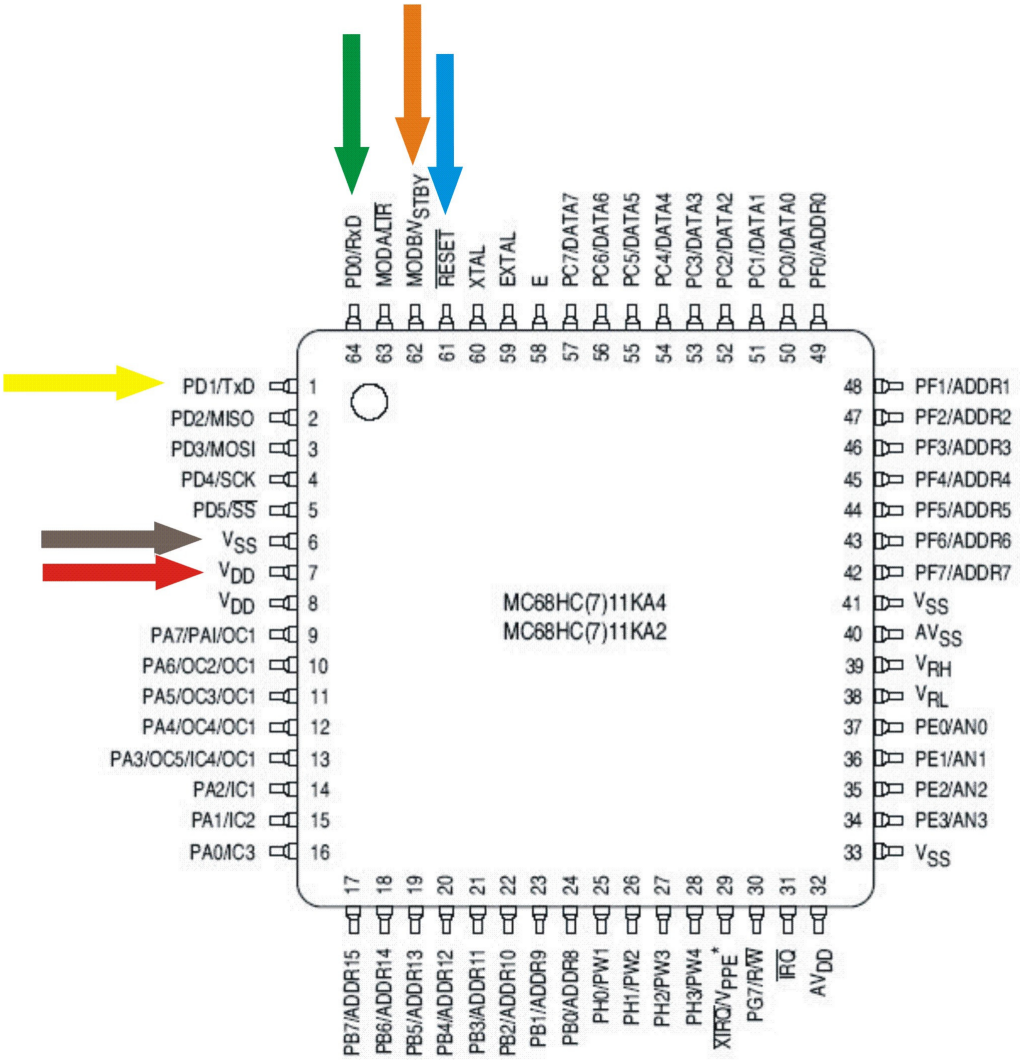
6. MC68HC11KA4, MC68HC711KA4

MPU	Mask Set
MC68HC11KA4	E57S
	E59B
	F60M
	H95B
MC68HC711KA4	D61N



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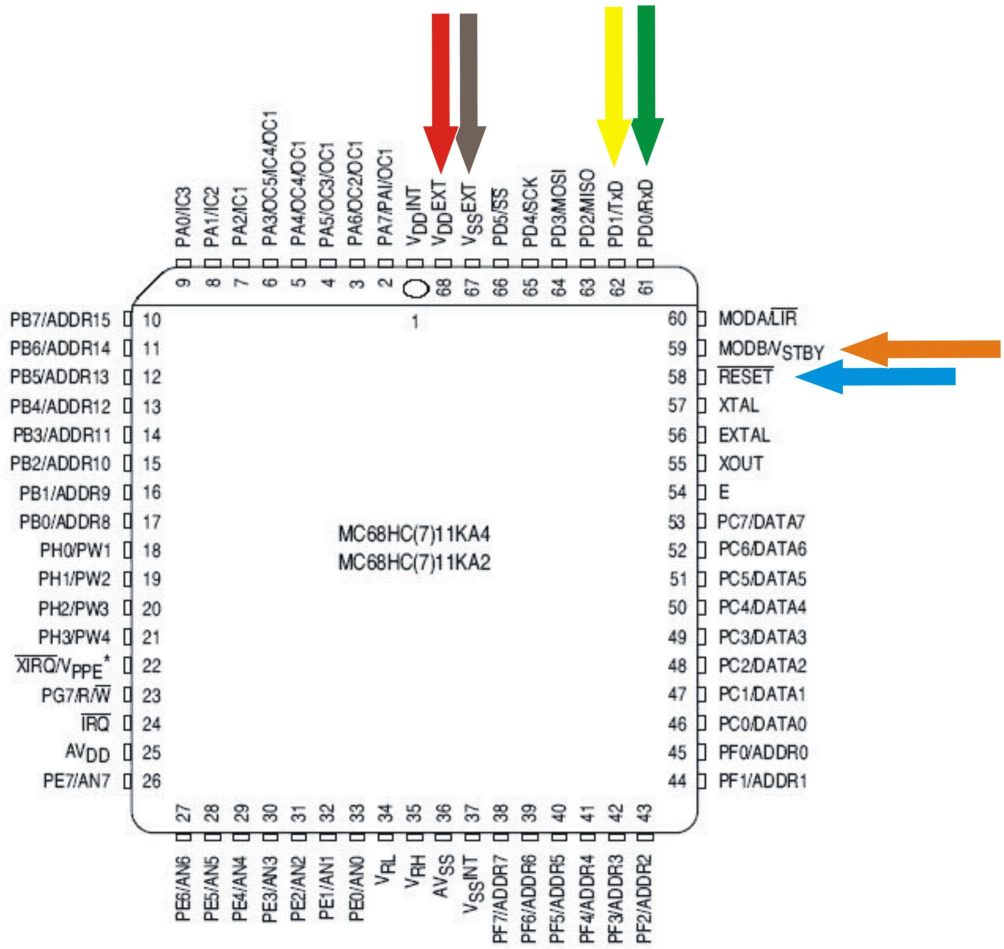

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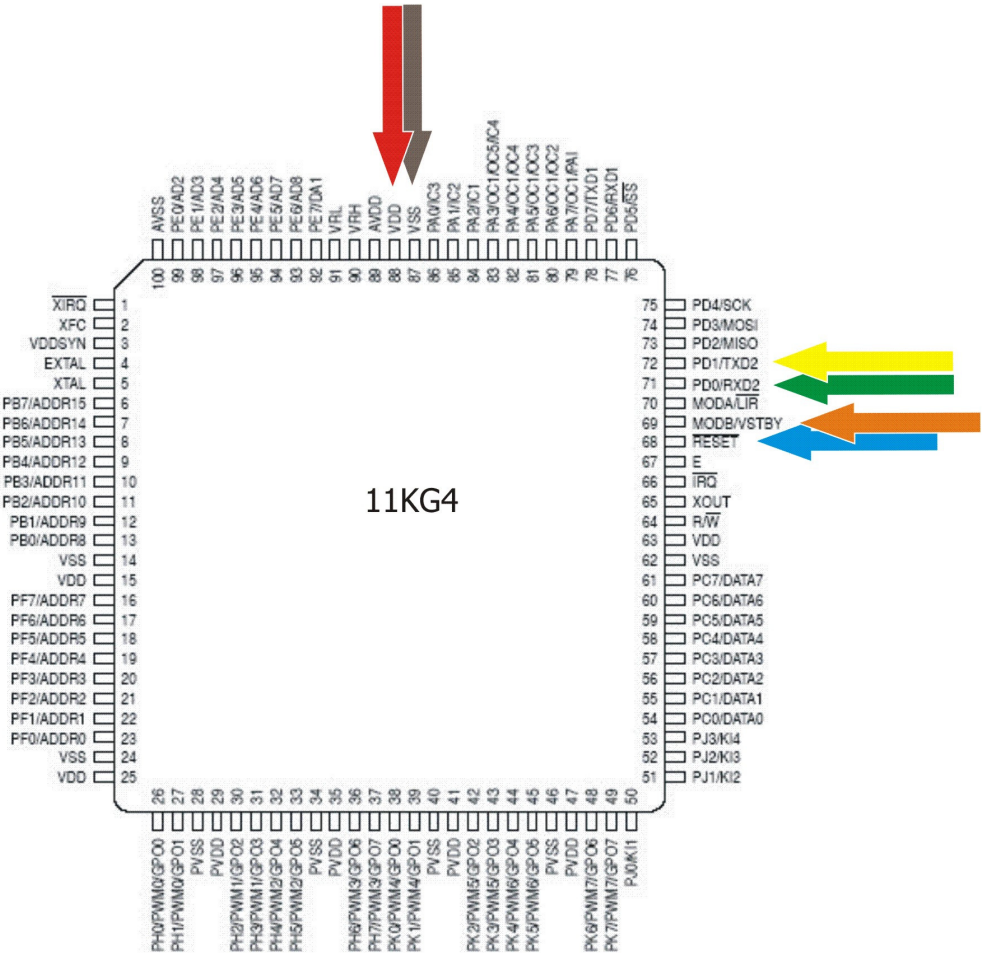
7. MC68HC11KG4, MC68HC711KG4

MPU	Mask Set
MC68HC11KG4	G32V F53E
MC68HC711KG4	H86A



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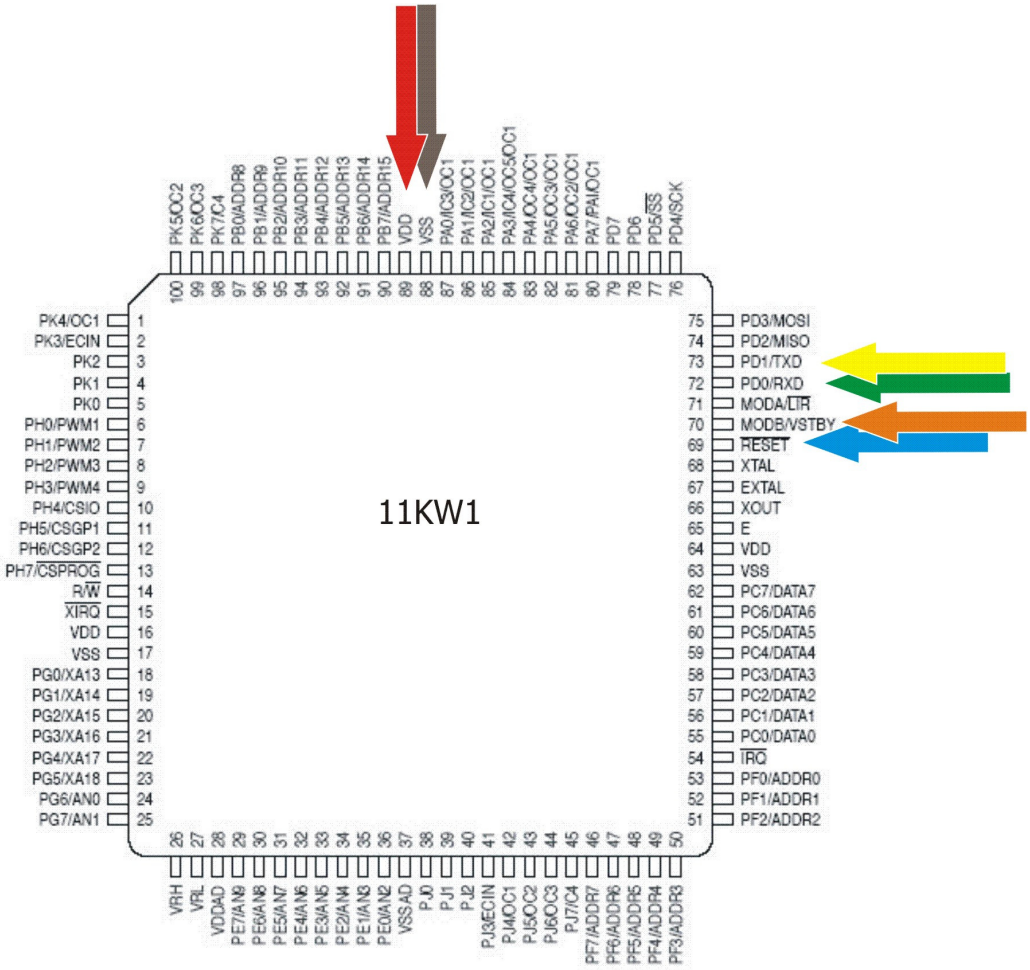
8. MC68HC11KW1

MPU	**Mask Set**
MC68HC11KW1	



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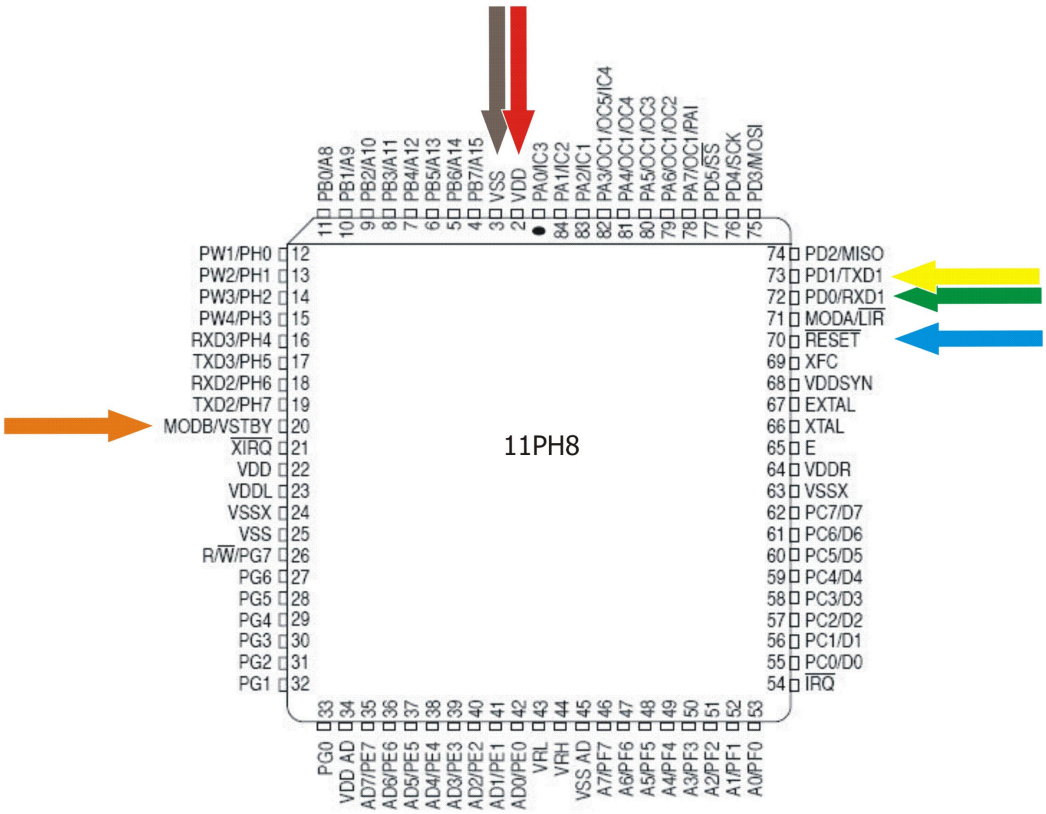
9. MC68HC11PH8, MC68HC711PH8

MPU	Mask Set
MC68HC11PH8	D48J
	H30R
MC68HC711PH8	



10. MC68HC11P2, MC68HC711P2

MPU	Mask Set
MC68HC11P2	D48J
	H30R
MC68HC711P2	D99H
	E53M

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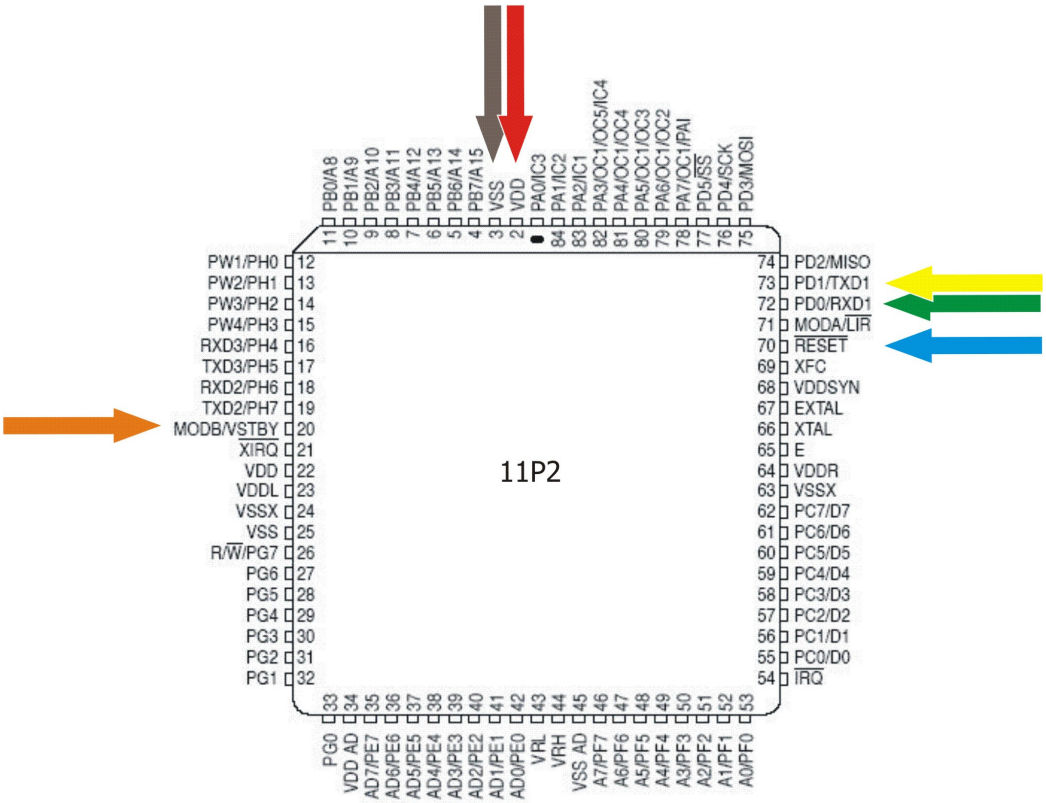

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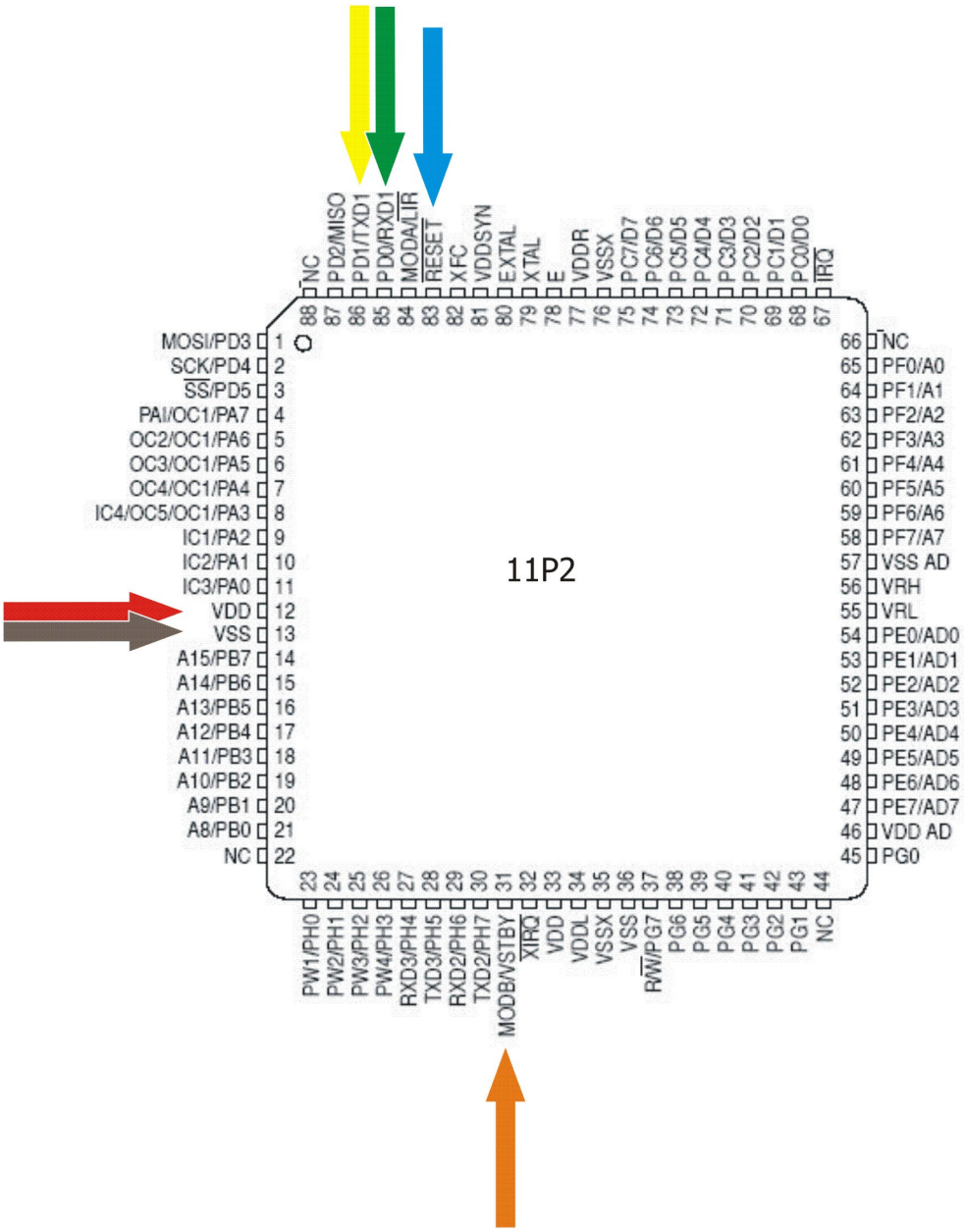

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