

# Portable Product Sheet - Router Memory



Last Updated: December 17, 2002

All numbers for table 1a/b/c are for internal DRAM/Flash only. For external flash cards/disks, see table 4. Column "E?" is a field that indicates if the unit supports external flash memory (See Table 4).

Memory given as 'standard' (Std) will always be sold as an optimal configuration - for example, the 3660 comes with 32Mb DRAM default, and this is given as a single 32Mb module, instead of 2 x 16Mb. This is always the case unless there is a severe memory component shortage.

**Memory Tables - Table 1 - SOHO/SMB Routers**

Router	DRAM				Flash				
	Fixed	Slots	Std	Max	Fixed	Slots	Std	Max	E?
SOHO7x	16	0	16	16	8	0	8	8	N
SOHO9x	32	0	32	32	8	0	8	8	N
700	1.5	0	1.5	1.5	1	0	1	1	N
801-804	4	1	4	12	4	1	8	12	N
805	8	1	8	16	4	1	4	12	N
806	16	1	32	32	0	1	8	16	N
811-813	8	1	8	16	4	1	8	12	N
827/828	16	1	32	32	8	1	8	16	N
826/827H	16	1	32	32	8	1	8	16	N
831/837	32	1	32	48			8	16	N
1003/4/5	0	0	8	16	0 (PCMCIA only)				Y
1400	8	1	16	24	0 (PCMCIA only)				Y
16xx	2	1	2	18	0 (PCMCIA only)				Y
16xxR	8	1	8	24	0 (PCMCIA only)				Y
1710	32	1	32	64	16	0	16	16	N
1720	16	1	32	48	0	1	8	16	N
1721	32	1	32	96	16	0	16	16	N
1750	16	1	16	48	0	1	4	16	N
1750-xV	16	1	32	48	0	1	8	16	N
1751	32	1	32	96	16	0	16	16	N
1751-V	64	1	64	128	32	0	32	32	N
1760	32	1	32	96	16	1	16	64	N
1760-V	32	1	64	96	16	1	32	64	N
IAD2400	64	0	64	64	8	0	8	8	N
2500	0 or 2	1	4 or 8	16	0	2	8	16	N

## Notes - SOHO/SMB Router Memory

806/826's used to come with less DRAM (16Mb) standard. Routers shipped after April 2002 come with 32Mb as default (and maximum).

Newer 8xx/SOHO's come with internal flash where 2Mb is devoted to the web installer. This is unusable for system images, and is not counted in the table for that very reason.

# Portable Product Sheet - Router Memory



Memory Tables - Table 2 - Midrange/Access Routers

Router	System DRAM			Packet DRAM			Main Flash			Boot Flash		E?
	Slots	Std	Max	Slots	Std	Max	Slots	Std	Max	Min	Max	
2610-13	2	32	64	0			1	8	16	0		N
262x	2	32	64	0			1	8	32	0		N
265x	2	32	128	0			1	8	32	0		N
261xXM	2	32	128	0			1	16	48	0		N
262xXM	2	32	128	0			1	16	48	0		N
265xXM	2	64	128	0			1	16	48	0		N
2691	2	64	256	0			1	32	128	0		Y
3620	4	32	64	0			2	16	32	0		Y
3640(A)	4	32	128	0			2	16	32	0		Y
3660 (Ent)	2	32	256	0			2	16	64	0		Y
3660 (Telco)	2	32	256	0			2	16	64	0		Y
3631	2	64	256	0			1	32	128	0		N
3725	2	128	256	0			1	32	128	0		Y
3745	2	128	256	0			1	32	128	0		Y
mc3810	1	32	64	0			1	16	32	0		N
mc3810-V3	1	64	64	0			1	16	32	0		N
4000M	1	8	32	1	4	16	2	4	16	0		N
4500M	2	16	32	1	4	16	2	4	16	4	16	N
4700M	2	16	64	1	4	16	2	4	16	8(ROM)		N
AS5200	1	8	16	1	4	16	2	16	16	0		N
AS5300	2	64	128	1	8	16	2	16	32	8	8	N
AS5350	2	128	512	1	64	128	2	32	64	8	16	N
AS5400(-HPX)	2	256	512	1	64	128	2	32	64	8	16	N

## Notes - Midrange/Access Routers

2610-21's were first shipped with 16Mb DRAM, then 24Mb, and now are standardized on 32Mb.

262x's assembled prior to March, 2001 used a bootROM incompatible with the 32Mb Flash module from the 265x series and must be upgraded to the new bootrom to be able to use this module.

36xx routers shipped prior to mid-May of 2002 shipped with 8Mb default flash memory.

On any 4x00M, all 2-slot memory locations must have either a single chip installed or have equal-size chips installed.

# Portable Product Sheet - Router Memory



## Memory Tables - Table 3 - Core Routers

Router	System DRAM			Packet DRAM			Boot Flash			E?
	Slots	Std	Max	Slots	Std	Max	Slots	Std	Max	
70x0(RP)	4	16	64	0			1	4	4	Y
70x0(RSP)	4	16	128	0			1	8	8	Y
71xx	2	64	256	1	64	64	1	8	8	Y
72xx (NPE-100)	4	32	128	0			0			N
72xx (NPE-150)	4	64	128	1 (fixed)			0			N
72xx (NPE-175)	1	64	128	0			0			N
72xx (NPE-200)	4	64	128	4 (fixed)			0			N
72xx (NPE-225)	1	128	256	0			0			N
72xx (NPE-300)	2	128	256	2	32	32	0			N
72xx (NPE-400)	1	128	512	0			0			N
72xx (NPE-G1)	2	256	1024	16(<=256) or 32(>256)			16 (fixed)			Y
72xx (NSE-1)	1	128	256	0			0			N
72xx (I/O;-FE)	0			0 or 1			4	4		Y
72xx (I/O-GE;2FE)	0			8 (fixed)						Y
7304	1	128	512	0			1	32	32	Y
7401	1	128	512	0			8 (fixed)			Y
75xx(RSP1)	4	16	128	0			1	8	8	Y
75xx(RSP2)	4	32	128	0			1	8	8	Y
75xx(RSP4/4+)	2	64	256	2 (fixed)			1	8	16	Y
75xx(RSP8)	2	64	256	8 (fixed)			1	16	16	Y
75xx(RSP16)	2	128	1024	8 (fixed)			1	16	16	Y
75xx(VIP2-10)	2	16	64	1	0.512	2	0			N
75xx(VIP2-15/20)	2	16	64	1	1	2	0			N
75xx(VIP2-40)	2	32	64	1	2	2	0			N
75xx(VIP2-50)	1	32	128	1	4	8	0			N
75xx(VIP4/VIP6)	1	64	256	1	64	64	0			N

### Notes - Core Routers

Some models of I/O, I/O-FE, and I/O-FE-MII had 4Mb Bootflash socketed, others have it fixed onboard.

NPE-100/150/200 and VIP2-10/15/20/40 must pair memory SIMM's.

# Portable Product Sheet - Router Memory



Memory Tables - Table 4 (External Flash)

Router	Slots	Flash Card (FLC)							Fl.Disk (FLD)		Compact Flash				
		4	6	8	12	16	20	32	48	128	32	64	128	256	
1003/4/5	1	Y	N	N	N	N	N	N	N	N	N				
14xx	1	Y	Y	Y	Y	Y	N	N	N	N	N				
16xx	1	Y	Y	Y	Y	Y	N	N	N	N	N				
16xxR	1	Y	Y	Y	Y	Y	N	N	N	N	N				
2691	1	N							N	N	Y	Y	Y	N	
36xx	2	Y	N	Y	N	Y	Y	N	N	N	N				
37xx	1	N							N	N	Y	Y	Y	N	
70x0(RP)	1	N	N	Y	N	Y	N	N	N	N	N				
70x0(RSP)	2	N	N	Y	N	Y	Y	Y	N	N	N				
71xx	2	N	N	N	N	N	Y	N	Y	Y	N				
72xx (I/O)	2	N	N	N	N	Y	Y	N	Y	Y	N				
72xx (NPE-G1)	1	N							N	N	N	Y	Y	Y	
7304	1	N							N	N	N	Y	Y	N	
7401	1	N							N	N	N	Y	Y	N	
75xx(RSP1)	2	N	N	Y	N	Y	Y	N	N	N	N				
75xx(RSP2)	2	N	N	Y	N	Y	Y	Y	N	N	N				
75xx(RSP4)	2	N	N	N	N	Y	Y	Y	N	N	N				
75xx(RSP8)	2	N	N	N	N	Y	Y	Y	Y	Y	N				
75xx(RSP16)	2	N							Y	Y	N	N			

## Notes - External Flash

Fields in light orange denote what ships, by default, with the product (if any is default at all).

Technically speaking, most sizes of cards will work in most routers, so long as they are "less than" the maximum size it can officially support. What is listed here are what the CCO Docs list and/or what is orderable. Therefore, a smaller or larger card "may" work, but likely will not be supported by TAC.

To see if a card can be interchanged between different model routers, please refer to the following URL:  
<http://www.cisco.com/warp/public/63/pcmciamatrix.html>

# Portable Product Sheet - Router Memory



## Identifying Router DRAM

In most routers, the memory chip configuration is easily discernable, due to the router either only having fixed memory, or the router having only one DRAM slot. In some cases, however, there are multiple slots. In those cases, there are sometimes ways to figure out the memory layout (i.e. is my 3640's 64MB DRAM in 2x32MB or 4x16MB) through software, without having to physically open the chassis. Such procedures are listed below. Note that these procedures do not cover all multi-memory-slot routers... for some router models, software methods are impossible. This is not to say that, in the future, IOS will not include other models - just that, currently, there is no way to do so.

Router Model	Procedure
26xx (non-XM)	Issue a " <b>show c2600</b> " command. This may not work on older models of 26xx, and only works in newer IOS images - 12.2(11)T is required (Cisco Enhancement ID CSCdv58188).
26xx(XM)	Issue a " <b>show c2600</b> " command. Only works in newer IOS images - 12.2(11)T is required (Cisco Enhancement ID CSCdv58188).
2691	Issue a " <b>show platform</b> " command.
3620/3640	Use the procedure described at <a href="http://www.cisco.com/warp/customer/63/simm_config_3620_3640.html">http://www.cisco.com/warp/customer/63/simm_config_3620_3640.html</a>
3631	Issue a " <b>show platform</b> " command.
3725/3745	Issue a " <b>show platform</b> " command.
AS5400	Issue a " <b>show as5400</b> " command. Only works in newer IOS images - 12.2(11)T is required (Cisco Enhancement ID CSCdv64625).