



Motorola ACE3600

I/O Expansion – Introduction

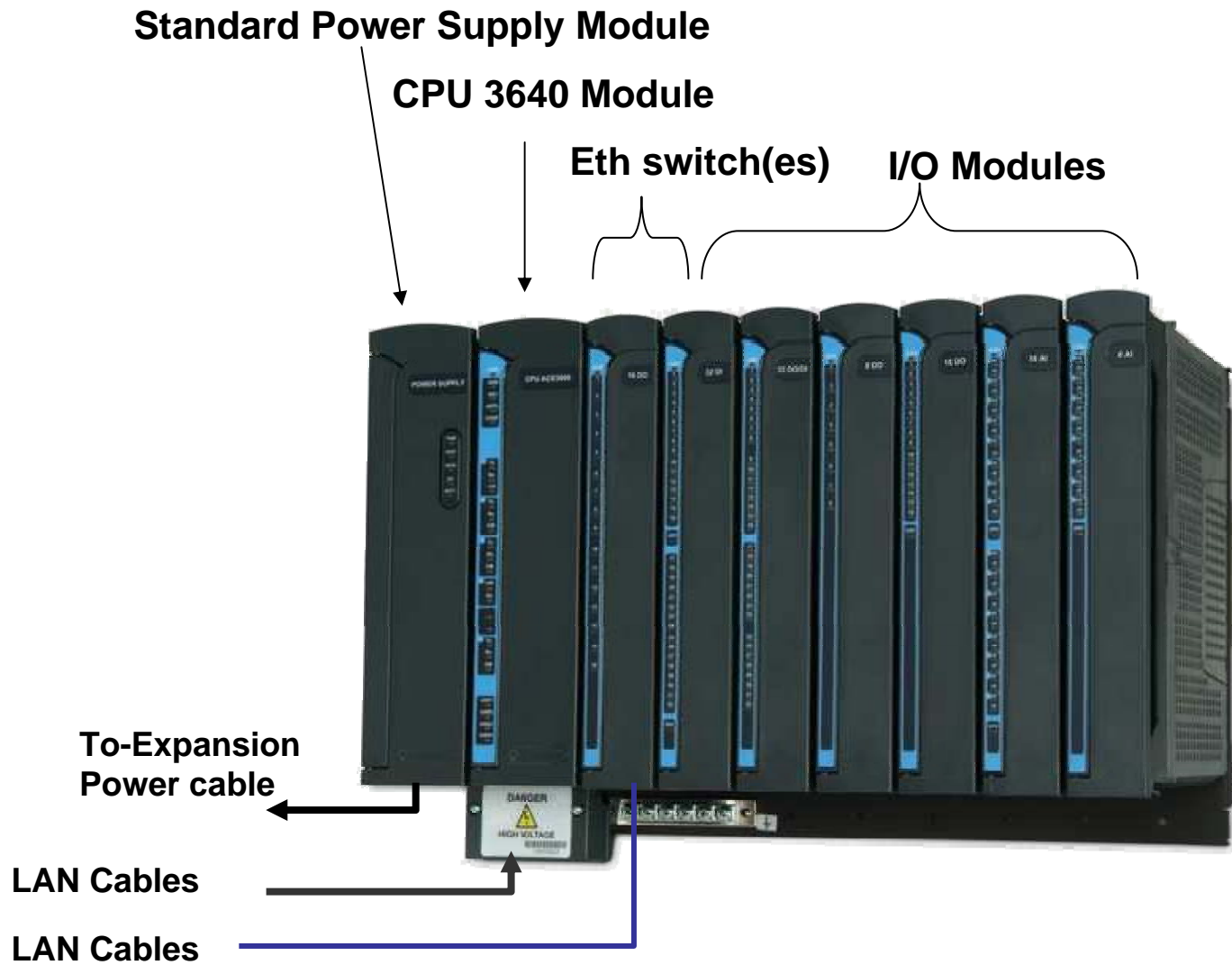


May 2009 - ACE3600 Enhancements

ACE3600 I/O Expansion

- **Up to 13 Expansion Frames - max. 110 I/O modules per RTU.**
- **Each I/O Expansion Frame can be 3, 5, 7 or 8 I/O slots.**
- **Based on a dedicated 100 Mb/s Ethernet LAN for reliable communication between the Main Frame CPU and each I/O Expansion Frame.**
- **Expansion Frames can be installed up to 75 m distance from the main frame (via Eth. Switch).**
- **Expansion Frames can be cascaded to the main frame Power Supply (per main PS max. power limitations).**

Main Frame



Expansion Frame

Expansion Power Supply Module **

Expansion Module

I/O Modules*

Expansion
Power cable

LAN
Cable

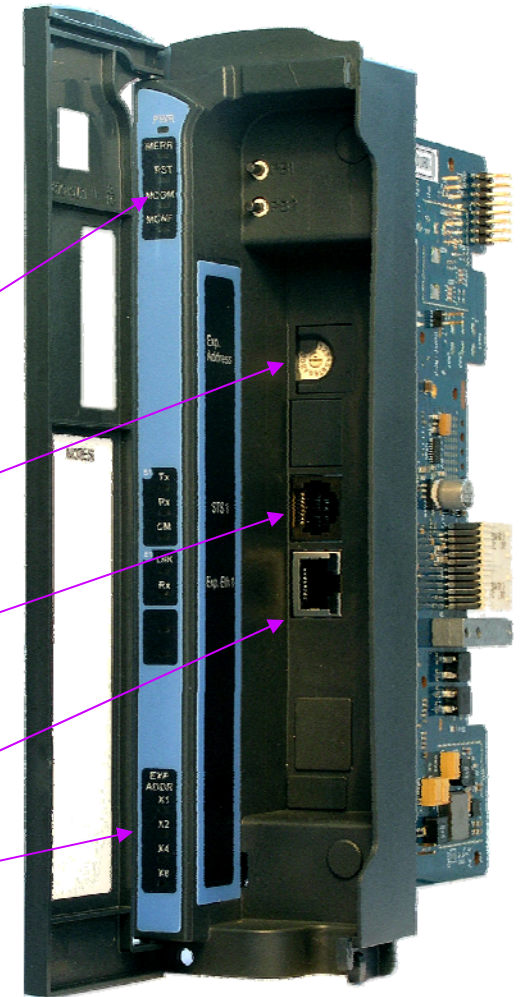


* 3, 5, 7 or 8 slots options

** Can be replaced by other PS options

Expansion Module

- Automatically connects the I/O Expansion Frame to the Main Frame CPU
- Enable the main CPU to monitor and control the I/O modules on the Expansion Frame
- Includes:
 - Status and port activity LEDs
 - Frame Number selector switch
 - RS-232 port for local STS connection (interconnects to the main frame CPU)
 - Dedicated Ethernet port for connection to the main frame CPU
 - LEDs for indicating Frame Number



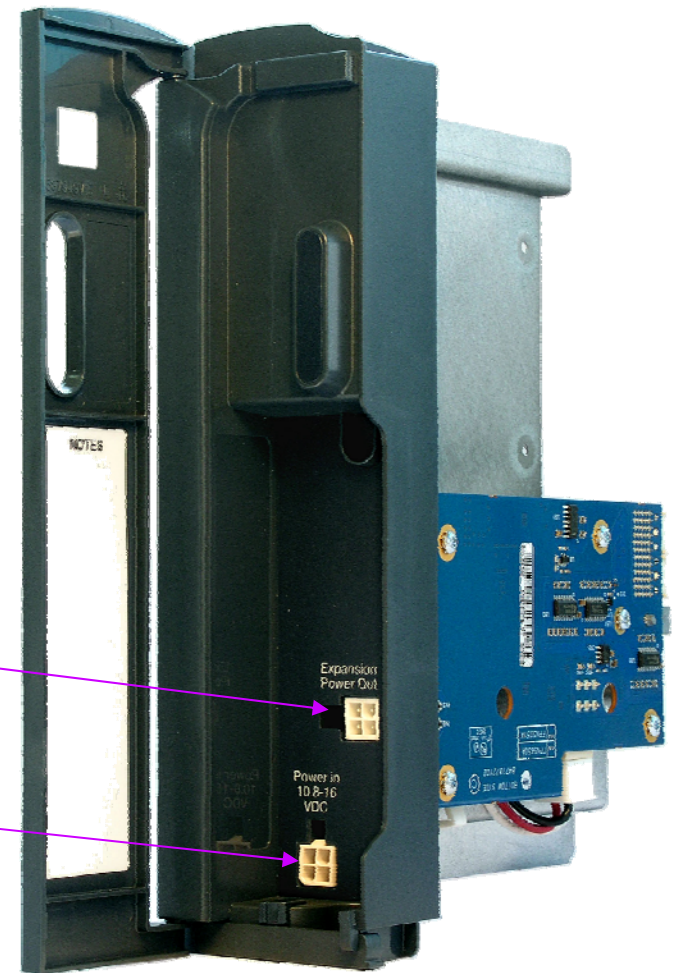


Expansion Power Supply Module

- **Default PS*** for I/O Expansion Frame
- **Can be cascaded to Main PS**
- **Can be cascaded to the next Expansion Frame PS**
- **Includes Expansion PS Power Cable**

Expansion PS output

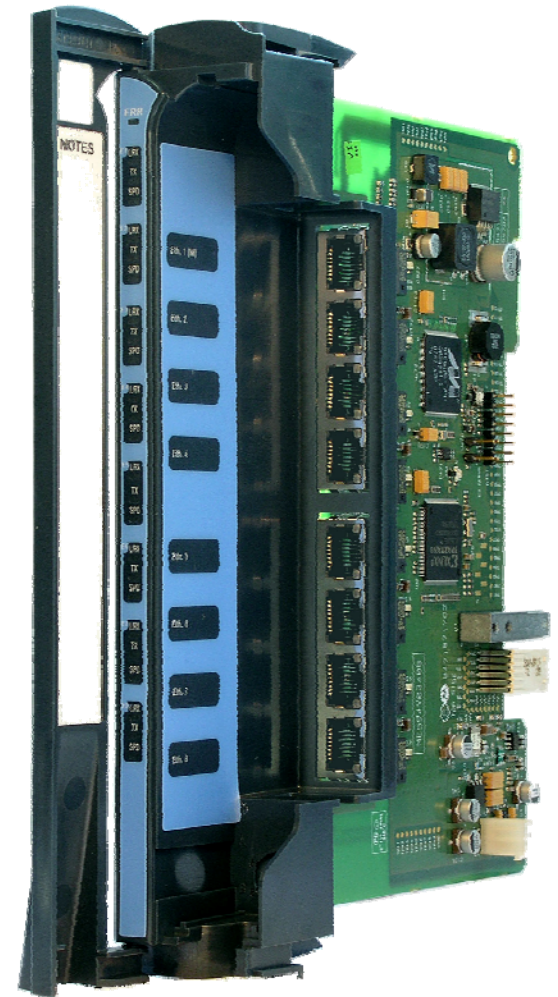
Expansion PS input



* Can be replaced by the other PS options
(excluding Low-tier PS)

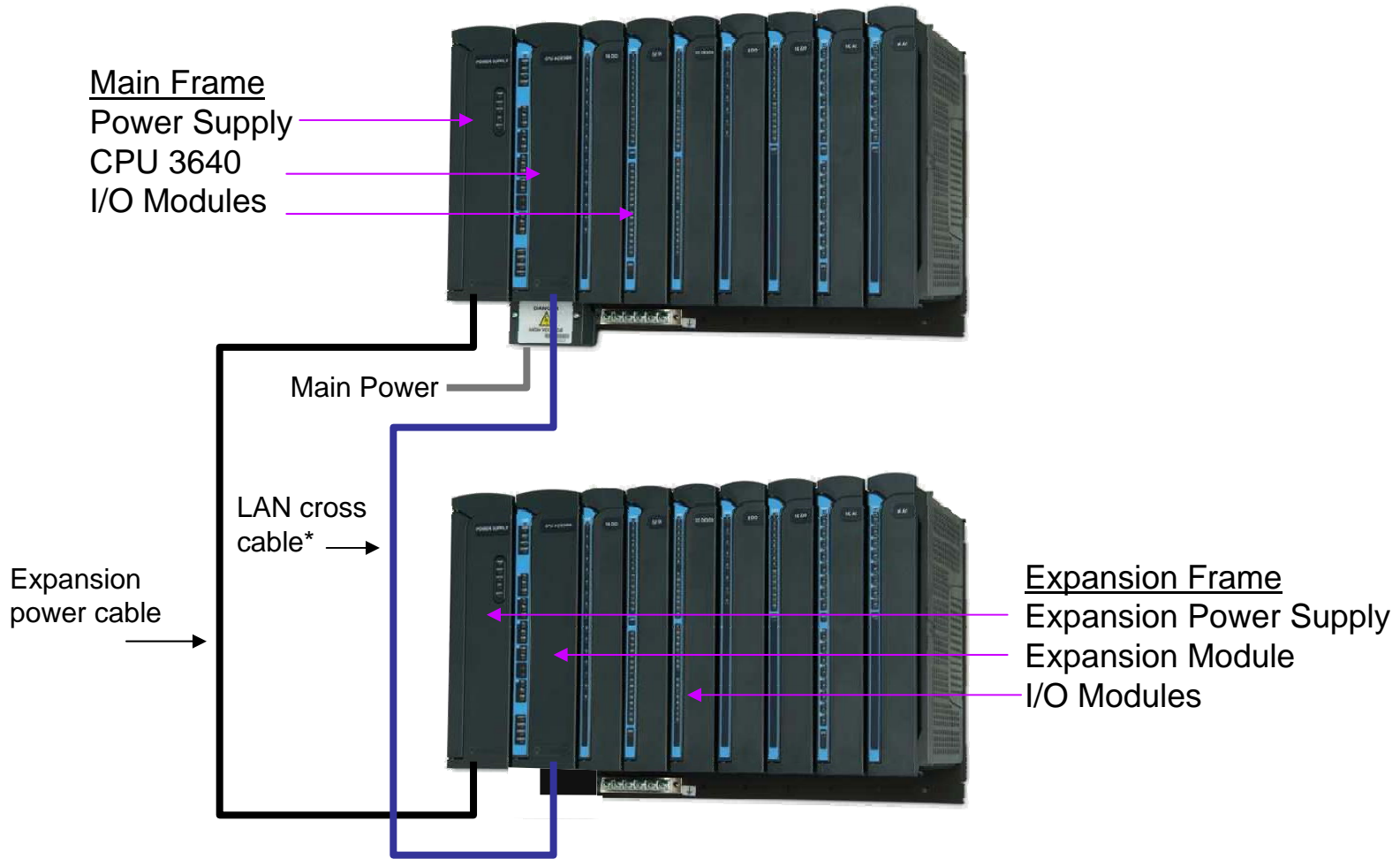
Expansion 8 Port Ethernet Switch Module

- 100 Mb/s managed Ethernet Switch
- Located in standard I/O slot on the main frame.
- One Switch module enables connecting up to 7 I/O Expansion Frames to the main frame.
- Two Switch modules enable connecting up to 13 Expansion Frames to the main frame.
- Link, Speed and Activity LEDs per each port





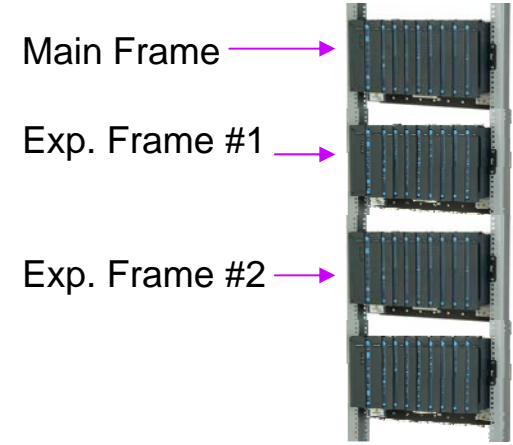
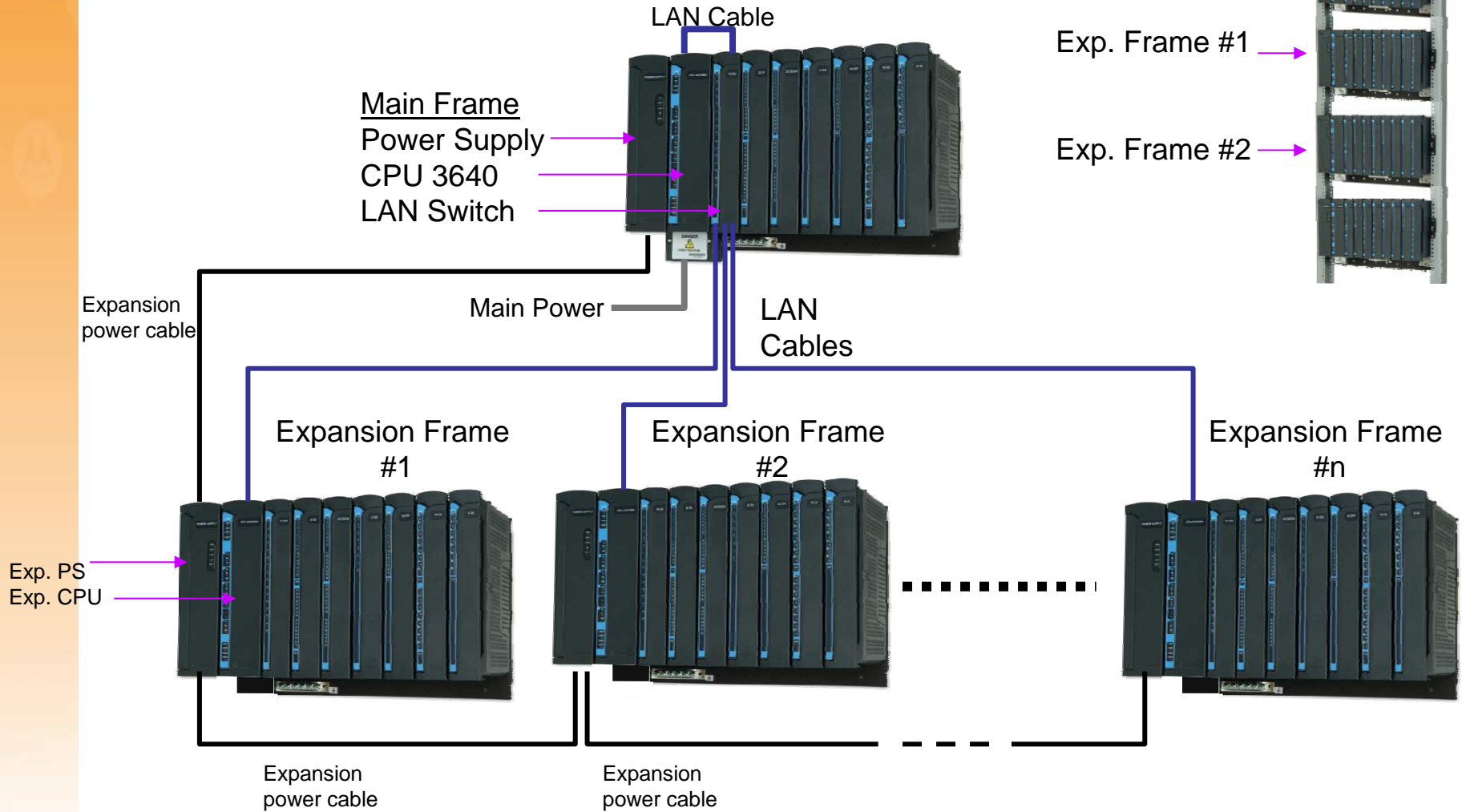
Single Expansion Frame (up to 16 I/O modules)



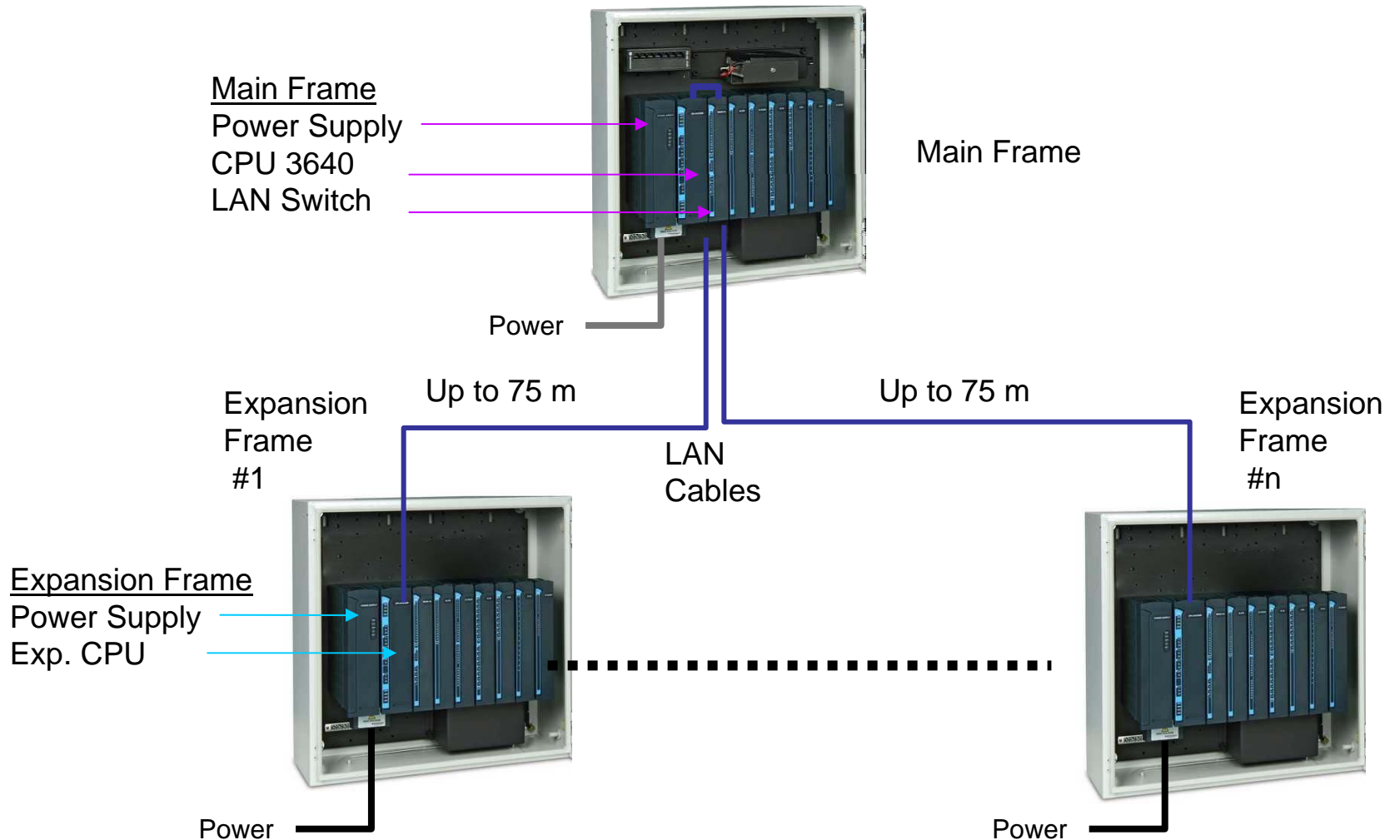
* Up to 50 m



Multiple Expansion Frames (up to 13 I/O Expansion Frames)



Distributed I/O Expansion Frames (up to 13 I/O Expansion Frames)





Expansion combinations

Number of I/O Slots	9-16	17-23	24-31	32-39	40- 47	48-55	56-63	64-70	71-78	79-86	87-94	95-102	103-110
Main Frame F75XX	1	1	1	1	1	1	1	1	1	1	1	1	1
Exp. Frame F7510	1	2	3	4	5	6	7	8	9	10	11	12	13
LAN Switch Module	0	1	1	1	1	1	1	2	2	2	2	2	2



I/O Expansion – Ordering Information

(available May '09)

F7510	ACE 3600 EXPANSION FRAME	Frame for I/O expansion. Includes expansion power supply and expansion module. One of the I/O slots option V103/5/7/8 must be ordered. Power supply can be replaced with one of the power supply options excluding 12V Low-tier. LAN cable is not provided.
VA00226	Add: ACE3600 Expansion LAN	Expansion Ethernet LAN switch module for I/O expansion. Occupies one I/O module slot. Provided with one LAN cable 60 cm.
V529	ADD: LAN Cable 60cm	LAN cable for connecting the expansion LAN switch to the CPU.
V648	Add: LAN Cable 2 Meter length	LAN cable for connecting expansion frame to expansion LAN switch.
V666	Add: LAN Cable 3 Meter length	LAN cable for connecting expansion frame to expansion LAN switch.
V665	Add: LAN CROSS Cable	Crossed LAN cable for connecting a single expansion frame to the main CPU.