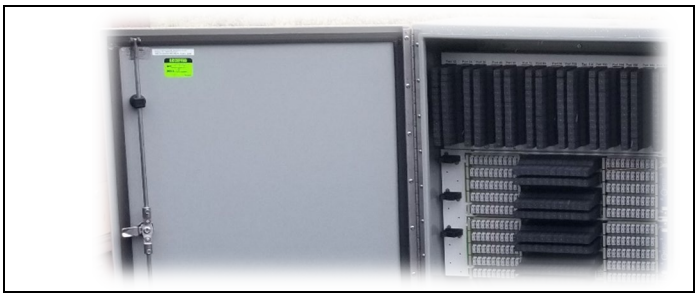

THE MAQS CATALOG

Comtest Networks

COMTEST NETWORKS MAQS SOLUTION SET

The MAQS is a Multiple Application Quick access Solution. The MAQS eliminates 40% of traditional cabling, improves crosstalk and reduces noise which is particularly important as cabinet density increases. Total Cost of Ownership (TCO) is improved by eliminating several connection points and thereby reducing points of failure and operation cost.

Russ Adams
Director Product & Business Development

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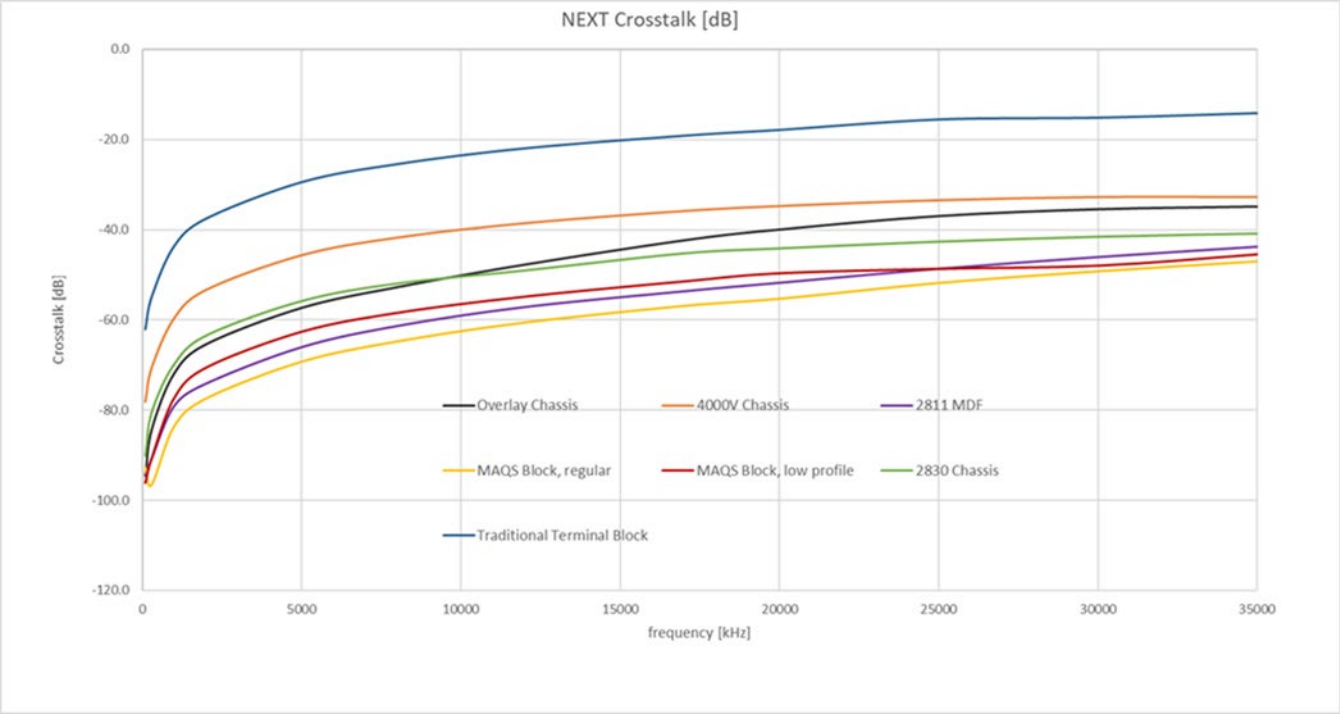
The Comtest Networks MAQS

The MAQS is a new connection block that combines 2 primary protection modules and a VDSL2 Splitter all in one housing. By moving the passive components away from the active side of the cabinet, space is freed up, allowing for cabinet expansion. The MAQS eliminates 40% of traditional cabling and by using our pre-made cable, wire wrap connections from the protection block are eliminated along with the noise they create. The MAQS Improves crosstalk and noise which is particularly important as cabinet density increases

When using the MAQS, TCO is improved by eliminating several connection points and thereby reducing points of failure and operation costs. The MAQS does not need to be placed in a controlled cabinet, allowing for easy expansion, even when cabling is exhausted

You can clearly see in the graph below that the MAQS improves NEXT by ~20dB. Which improves performance, stability, reliability and rate & reach.



The MAQS Solution Set

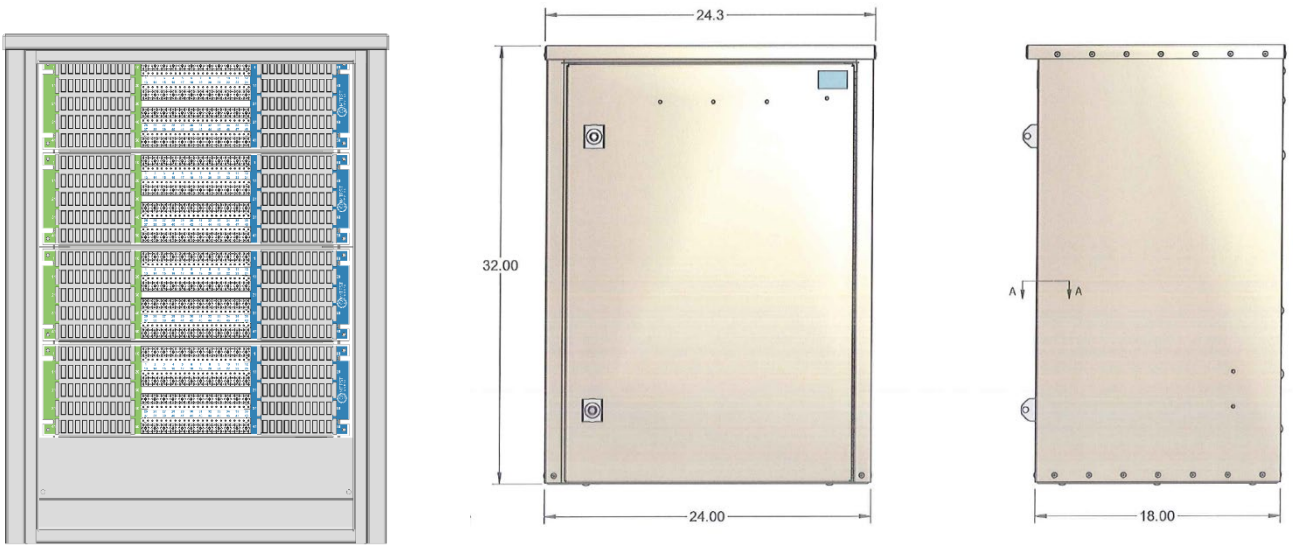
The MAQS CrossConn and CrossConn+

The Comtest MAQS CrossConn Solutions takes advantage of the MAQS 7-pin module that contains both dual Primary Protection and the Splitter. Primary Protection is provided for both the Feeder (F1) and the Distribution (F2) cable pairs while providing connectivity from the DSLAM or DPU via the Splitter.

The CrossConn

The CrossConn Solution can be as a standalone new cross connect box or attached to an existing cross connect boxes to provide relief and additional ports when expansion is required. And the MAQS CrossConn solution can be implemented at a fraction of the costs associated with Legacy/Traditional methods of new deployments or relief projects.

Supports 192 Ports New Cross Connect Box



192 Port Modular MAQS and Cross Connect Cabinet (P/N SA-7100-0101)

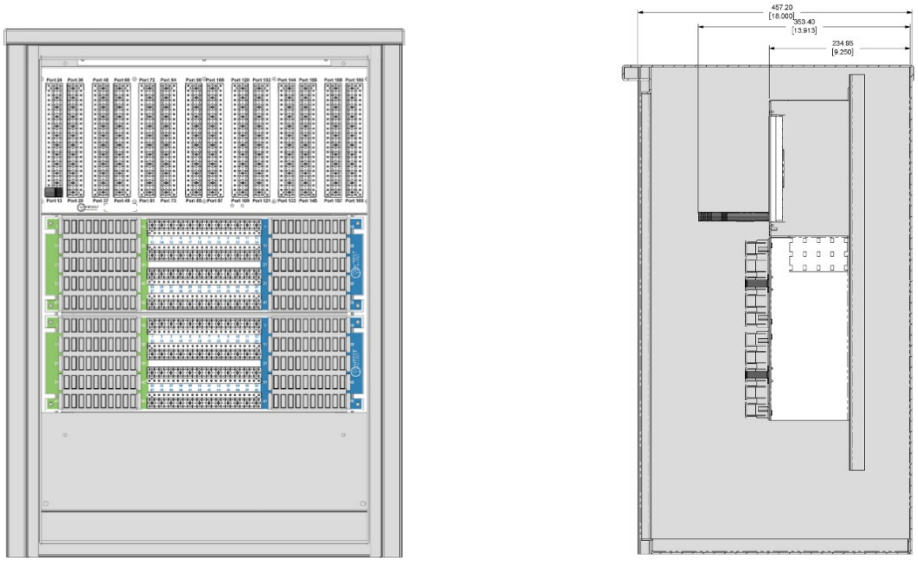
The CrossConn+ (The Buddy Box)

The CrossConn+ Solution can be used to free up room in the existing DSLAM cabinet to increase port density by removing 192 splitters and a total of 192 In and Out protection modules. The removal of the existing splitters and replacement with the MAQS also resolves any “dead port” issues caused by lightning or power surges.

This solution also can free up one of the cables or 200 pairs within a cable between the cross connect and the DSLAM. The 192 MAQS connect directly to MS2/710 blocks in the rear of the cross connect box so that existing jumpers in the cross connect box do not need to be touched.

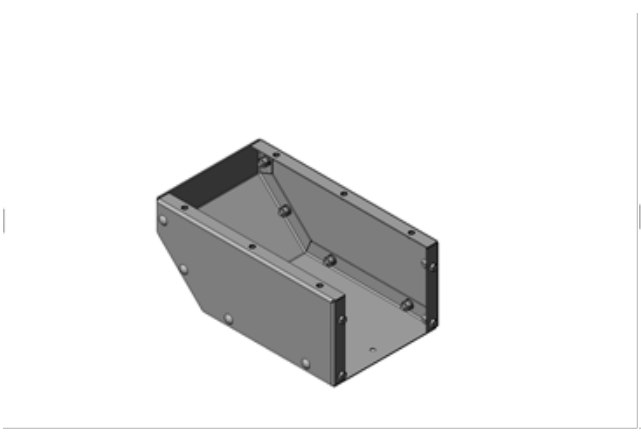
The MAQS CrossConn Solution+ also allows new additional ports to be added in increments of 48 ports.

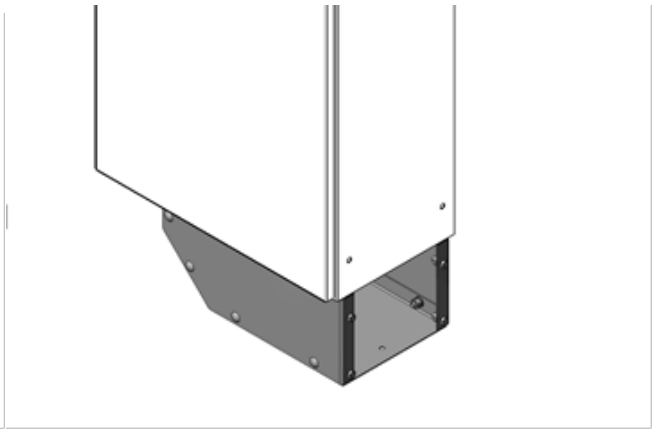
Supports 192 Existing Ports and 96 New Ports



192 Port MAQS System with 96 Port Modular Cross Connect (P/N SA-7100-0201)

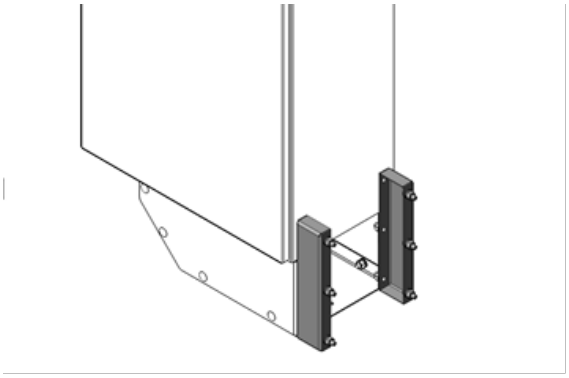
CrossConn Support Plinth

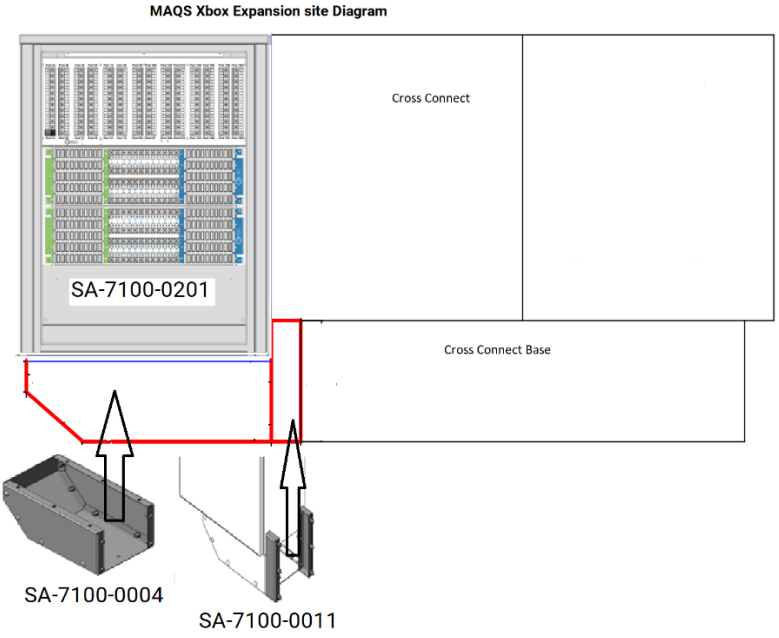




CrossCONN+ plinth

P/N SA-7100-0004





CrossCONN+ plinth adapter brackets

P/N SA-7100-0011

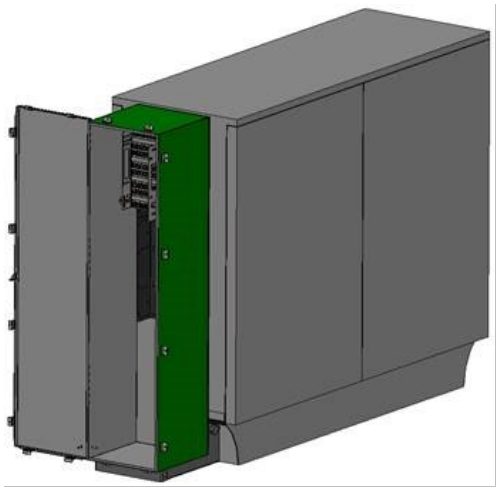
The MAQS CuB³ Cabinet Solution

The MAQS CuB³ Solution is similar to but with a different form factor than the MAQS CrossConn Solutions. The CuB³ lines up aesthetically and matches better when attached to a variety of different cross connect cabinets.

The MAQS CuB³ frees up room in the existing DSLAM cabinet to increase port density by removing as many as 192 splitters in 48 port increments. And up to 192 In and 192 Out 5 pin protectors from the DSLAM cabinet.

By using the MAQS CuB³, 200 pairs within a cable between the cross connect and the DSLAM can also be freed up and reused to add port density. The 192 MAQS connect directly to MS2/710 blocks in the rear of the cross connect box so that existing jumpers in the cross connect box do not need to be touched.

In addition, the removal of the existing splitters and replacement with the MAQS modules will resolves any “dead port” issues caused by lightning or power surges.

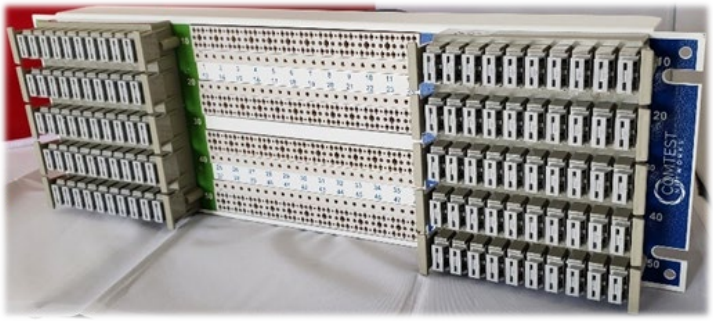


MAQS CuB³ 192-PORT Enclosure (P/N SA-7100-1501)

CrossConn 48 and 150 panel

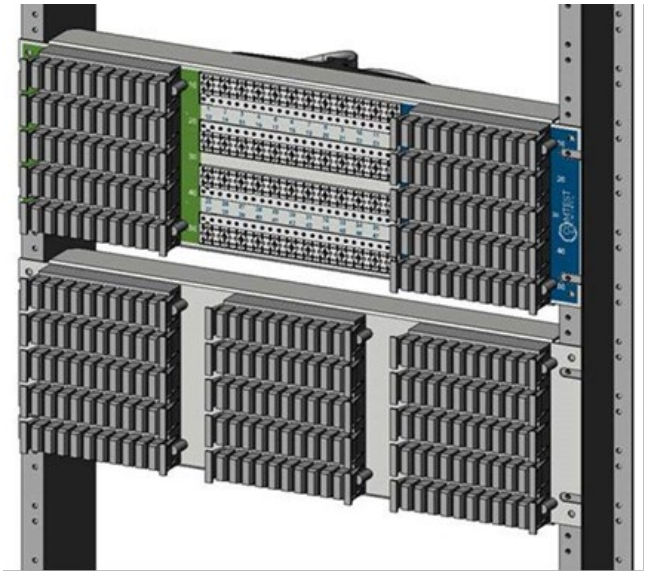
The MAQS Cross CONN 48 has a green IDC cross connect field for in (feeder), the MAQS in the middle with DSL header (DSLAM connects) and blue field out (distribution) is POTS +DSL out.

The 3x50 could be wired anyway you want, 50 in/feeder & 100 out distribution or whatever is required. This solution is perfect for pushing new VDSL2 further into rural areas, new sites, modernizing existing cabinets or for MDU's, remote CO's and huts.



MAQS CrossCONN 48 with feed & distribution IDC fields

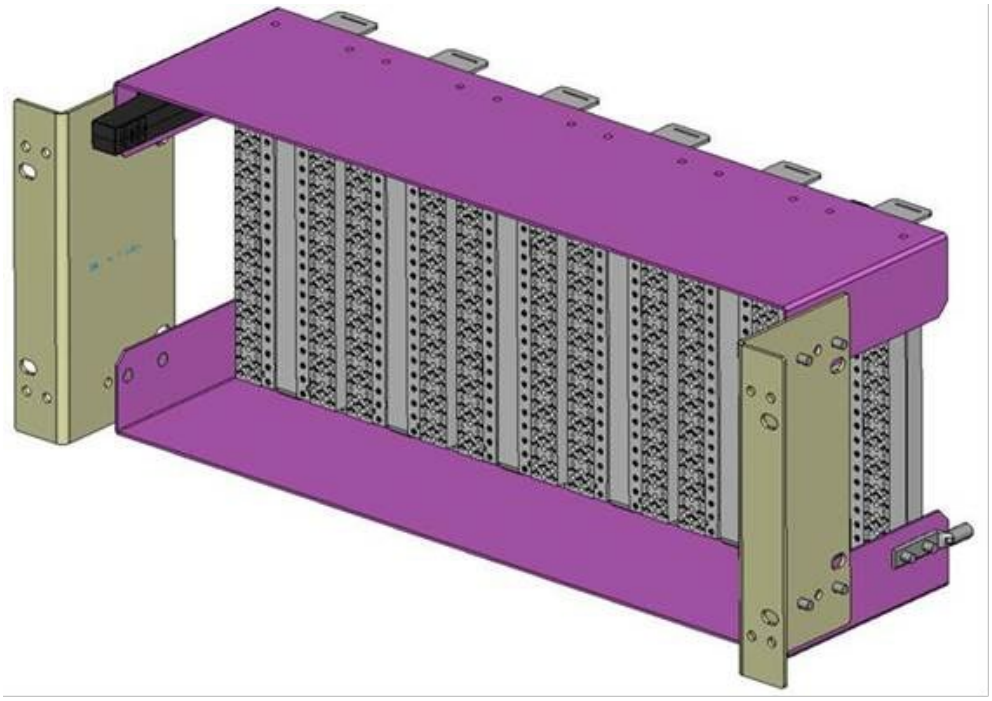
(P/N SA-7100-1001) – Shown without Splitters.



MAQS CrossCONN 48 with auxiliary *rls 150 panel/bracket for 19" or 23" rack

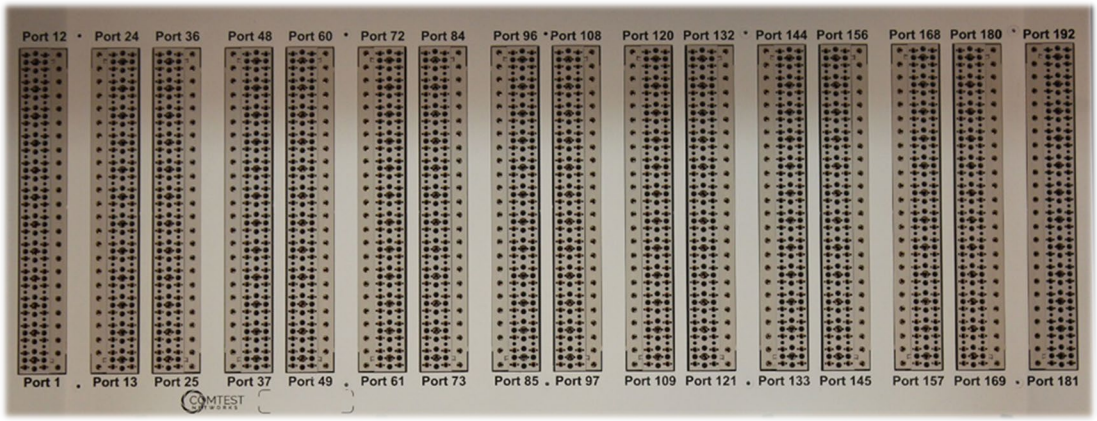
(*P/N SA-7100-2001-04)

144 & 192 Port MAQS Solutions



144 Port MAQS Solution (drop in for UMC/Tellabs Enclosures)

(P/N SA-7010-2101)

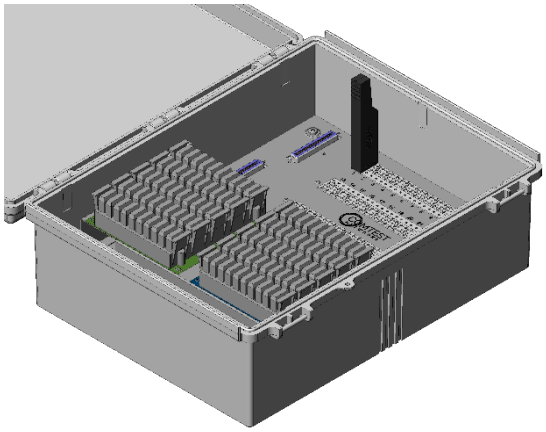


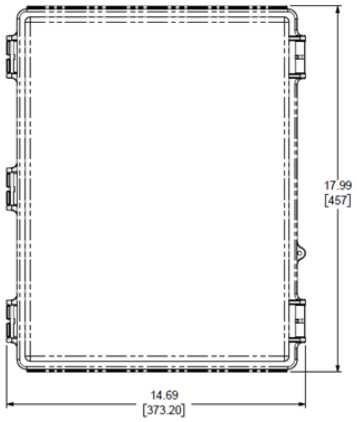
192 Port MAQS Solution

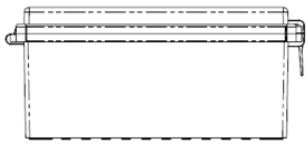
P/N SA-7100-1101 – (No Splitters)

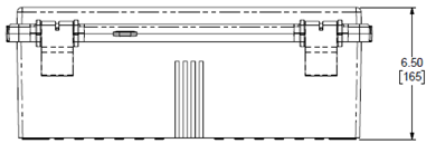
The 48 Port MAQS CrossConn – For MDU or OSP

The 48 Port MAQS Solution is for when the provider deploys G.fast in an MDU or needs to push New VDSL2 services out into rural and remote locations and for locations where service improvement is a must. The 48 port MAQS matches perfectly with any 48 port DPU or Hardened DSLAM and gives the service provider the versatility, superior performance, and protection of the MAQS 7 - pin dual primary and splitter module.



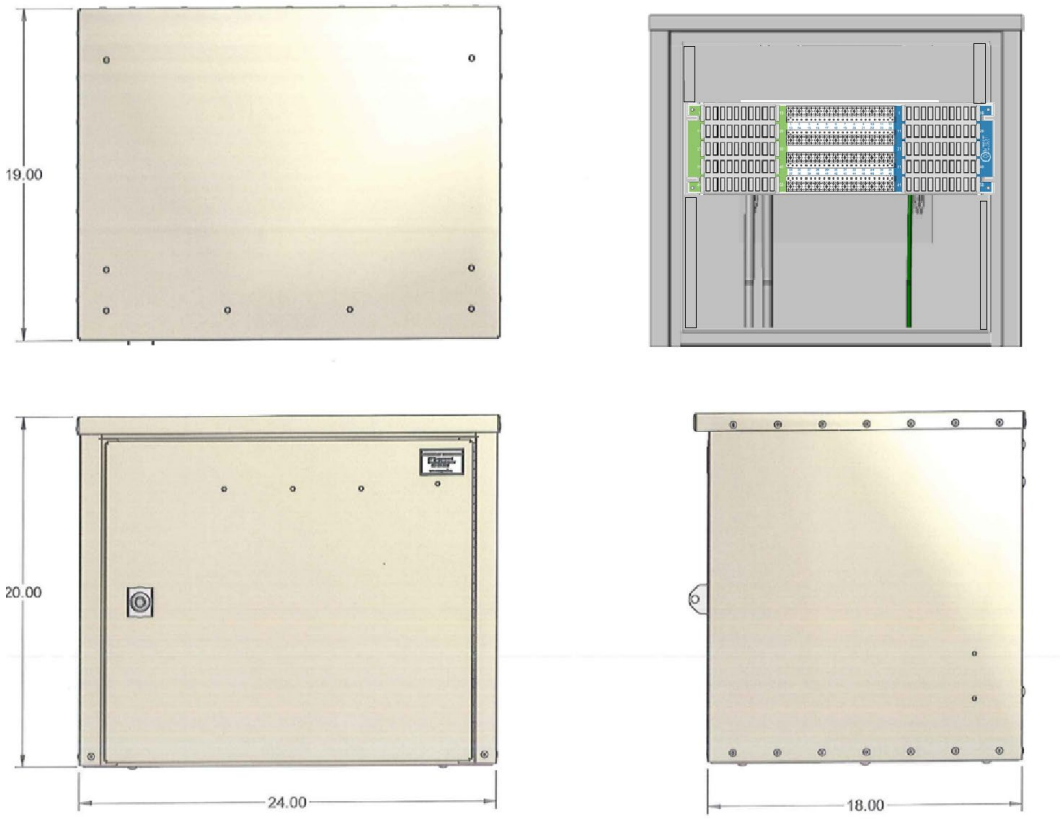






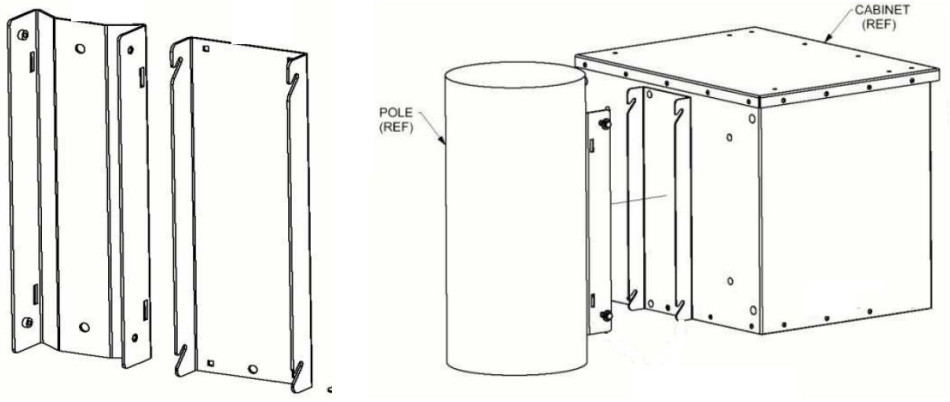
For use in an existing “Doghouse” style enclosure or MDU

P/N SA-7100-1301 (Plastic enclosure)



For use in OSP, wall mount or pole mount (see below)

P/N SA-7100-1401 & SA-7100-1402 (Aluminum enclosure)



The 48, 96 & 144 port MAQS UMC Protector Panel Replacement Solution

The issue with Legacy 5 pin protector panels is that they were only designed and intended to be used for POTS services. There is an inherent loss of rate and reach on xDSL services working through these old panels. Depending upon the age and type of the panel, the loss is at least ~5-10% due to noise at the inception caused by the cabling and wire wrap connections, in effect antennas at the back of the 5 pin protection panels. Up until now, with ADSL & possibly even VDSL deployments, this loss of performance at inception seemed to be acceptable. However, as the competition increases, this ~5-10% loss of rate and reach becomes a critical loss.

In addition, since they are positioned within these cabinets along with the DSLAM and other active electronic equipment, EMI and crosstalk becomes a real detriment to HSIA services. Causing issues like impulse noise, loss of sync and a variation of other performance problems.

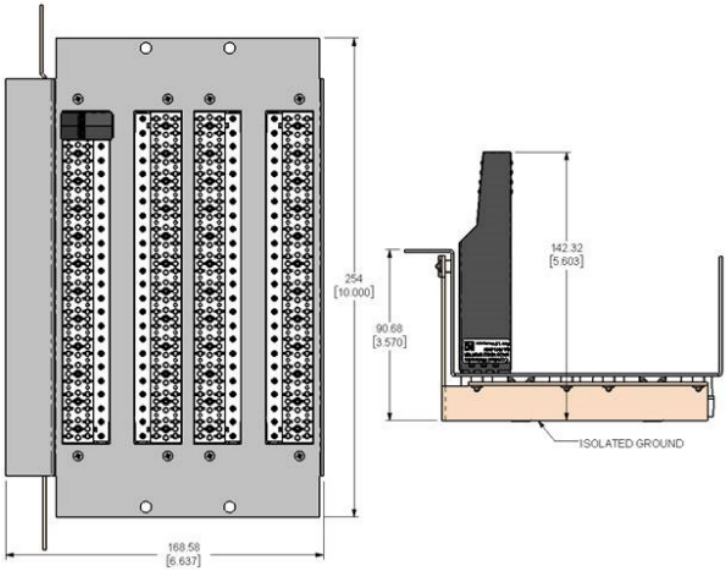
The 48 Port MAQS UMC Protector Panel Replacement Solution is for improving existing services at locations where old, antiquated POTS protector panels are creating service issues and multiple dispatches. With the MAQS you will eliminate the noise and loss of the rate and reach associated with the use of the standard 5 pin protection panels and will provide the best performance from new VDSL2 services.

UMC -000E

UMC-000F

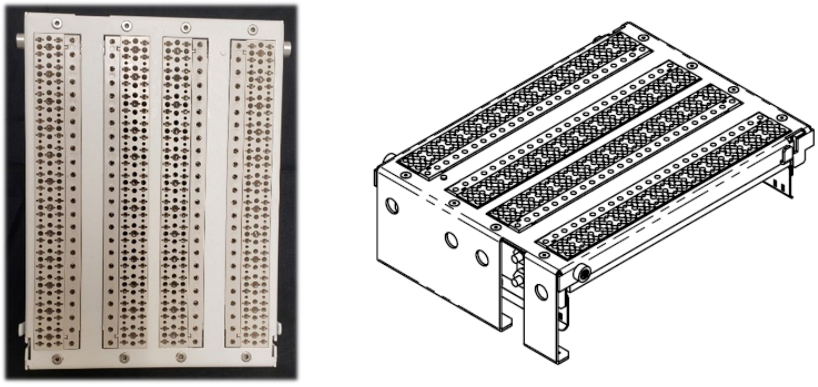
UMC-000G

The 48 & 96 Port MAQS UMC Protector Panel Replacement Solution (continued)



MAQS UMC R&R (R&R for UMC-000F)

P/N SA-7010-2501

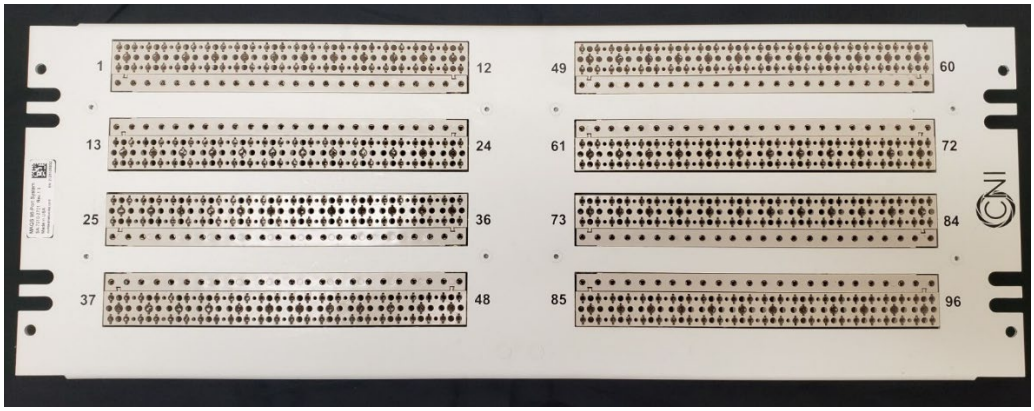


MAQS UMC R&R 307 R&R for UMC-000E

P/N SA-7010-2601

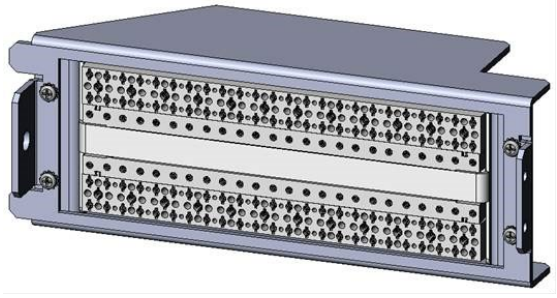
MAQS 48-Port Block, 48- Port Universal Mount

P/N SA-7010-3701



MAQS 96-Port Horizontal Replacement

P/N SA-7010-2701

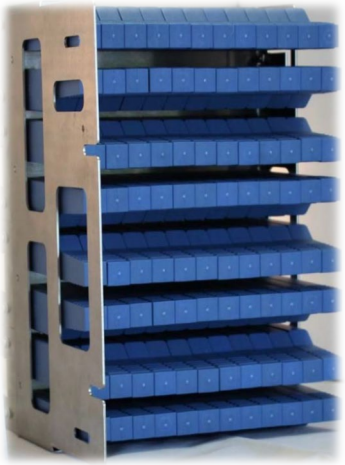


24-Port ODC Protection Block

P/N SA-7010-2801

The ODC 100 - MAQS Solution expand from 144 ports to 288 ports

The Protector Panel Replacement is a solution for increasing port density



ODC-100 96 Port MAQS System

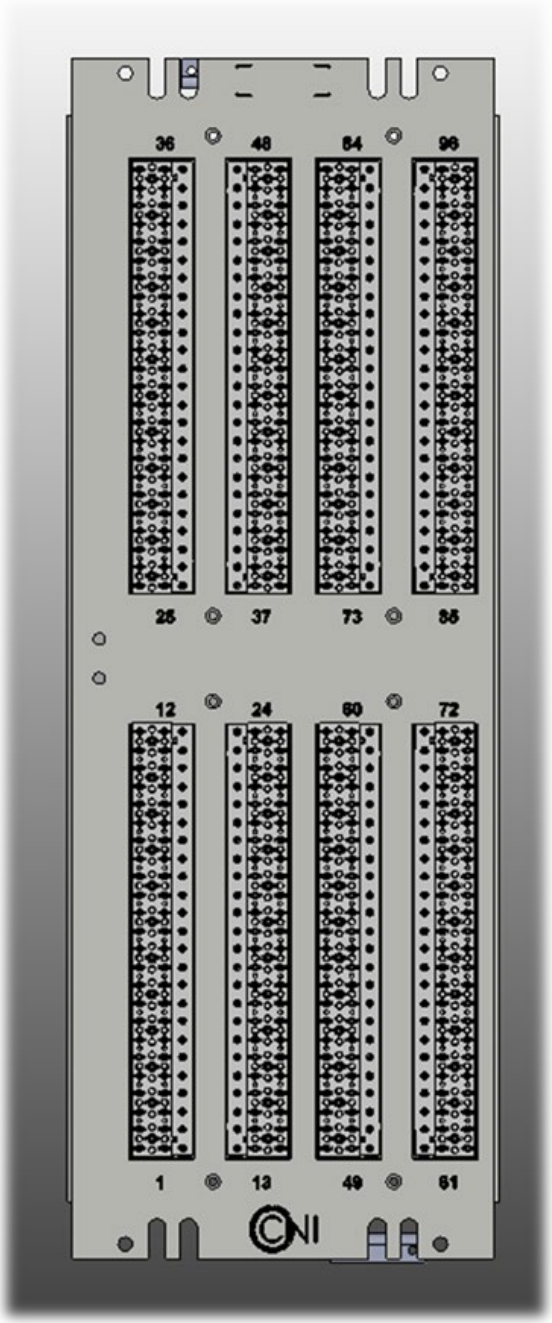
P/N SA-7010-9601

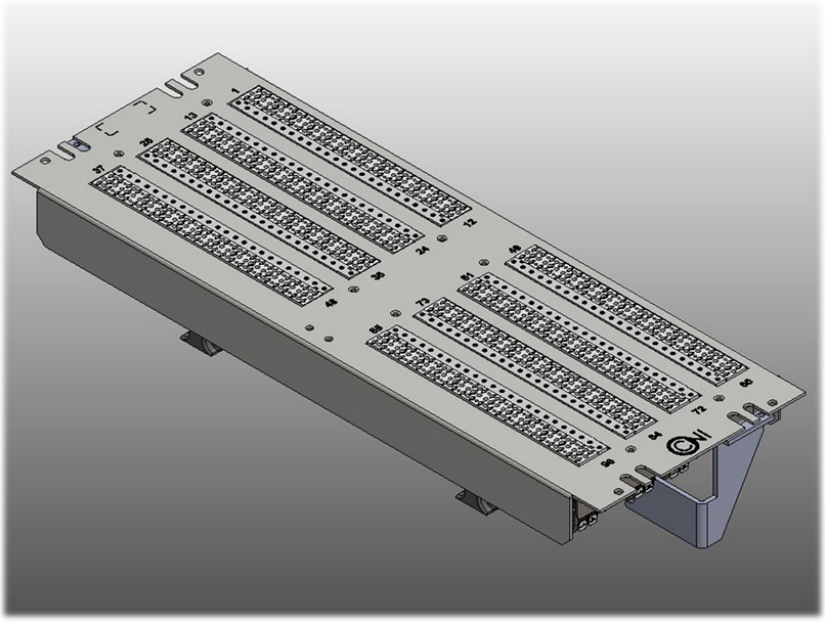
The existing protector panel
& bracket must be removed

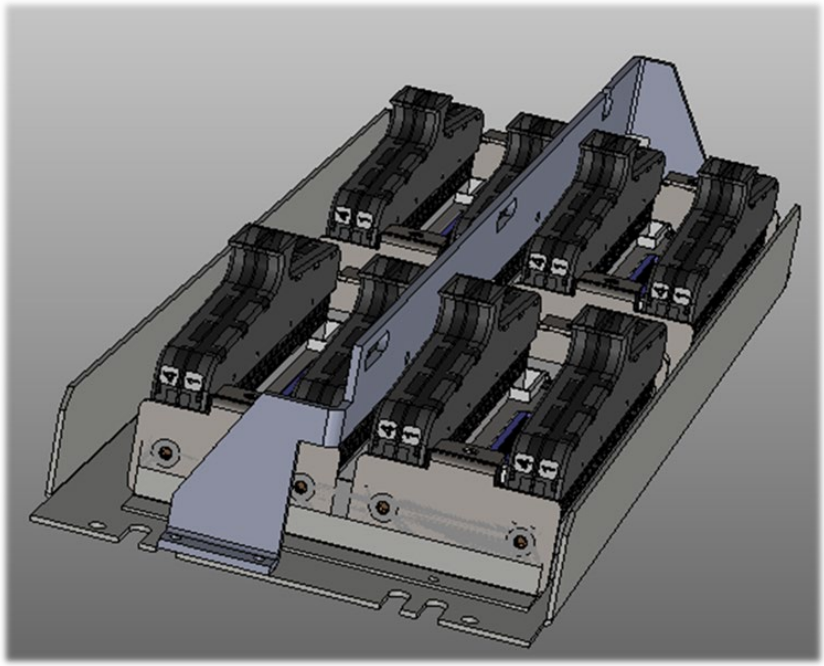
Replace existing panels with up to
3 x 96 port MAQS Frames

The MOP EG for this is available and R&R can be completed in a 2 Hour maintenance window.

MAQS Central Office 303/310 Vertical 5-pin Protector panel drop-in replacement







MAQS 96 Port Vertical Frame Central Office 303/310 replacement

SA-7010-2401

MAQS CrossCONN and CrossCONN+ Systems SA-7100 Series

SA-7100-0101	192 PORT **MAQS CrossCONN ENCLOSURE (System)
SA-7100-0201	192P **MAQS CrossCONN+ ENCLOSURE (System) + 96P Frame (no cables)
SA-7100-0201-20	192P **MAQS CrossCONN+ Sys + 96P Frame, w-20FT BLUNT END
SA-7100-0004	CrossCONN+ plinth
SA-7100-0011	CrossCONN+ plinth adapter brackets
SA-7100-1501	CuB³ 1**MAQS 192-PORT Enclosure
SA-7100-1001	48 Port **MAQS CrossCONN (no cable, no splitters)
SA-7100-1001-20	48 PORT **MAQS CrossCONN, w-20FT BLUNT END
SA-7100-2001-04	Auxiliary *rls 150 panel/bracket for 19” or 23” rack
SA-7010-2101	144 PORT MAQS Solution (no cable, no splitters)
SA-7100-1101	192 PORT MAQS Solution (no cable, no splitters)
SA-7100-1101-20	192 PORT MAQS Solution, w-20FT BLUNT END
SA-7100-1301	48 PORT MAQS CrossCONN BOX (Plastic Enclosure)
SA-7100-1401	48 PORT MAQS CrossCONN (Aluminum Enclosure)
SA-7100-1501	MAQS CuB³ 192-PORT Enclosure (Aluminum Enclosure)

MAQS UMC Protector Panel Replacement and Common MAQS Configs SA-7010 Series

(existing cabinet replacement blocks)

SA-7010-2401	MAQS 96 Port Vertical Frame Central Office 303/310 replacement
SA-7010-2501	MAQS Base 48-Port block drop-in replacement for UMC-x000E
SA-7010-2601	MAQS Base UMC R&R 307 R&R for UMC-000E & other
SA-7010-2701	MAQS 96-Port Horizontal Replacement (SA-7010-2701-23 includes ears for 23” frame)
SA-7010-2801	MAQS Base 24-Port ODC Protection Block
SA-7010-3701	MAQS Base 48 Port Universal Mount

The ODC 100 - MAQS Solution expand from 144 ports to 288 ports

SA-7010-9601	ODC-100 96 Port MAQS

24 Port Block Variations

SA-7010-0001	MAQS Base-24 Port Block (Telco Pinout)
SA-7010-0011	MAQS Base-24 Port Module \ 24 Port MAQS base (Telco Pinout)
SA-7010-S501	MAQS Base-24 Port Block (Adtran Sys5 Pinout)
SA-7010-S511	MAQS Base-24 Port Module (Adtran Sys5 Pinout)

MAQS Plugins and Accessories

SA-7010-0002	MAQS Connector Kit (OSP (Signal) Connectors)
SA-7011-0001	VDSL2 splitter with Dual Primary Protector
SA-7012-2001	G.fast Module with Dual Primary Protection
SA-7015-0001	Primary Protectors
SA-7016-0001	MAQS In-Line Tester Module

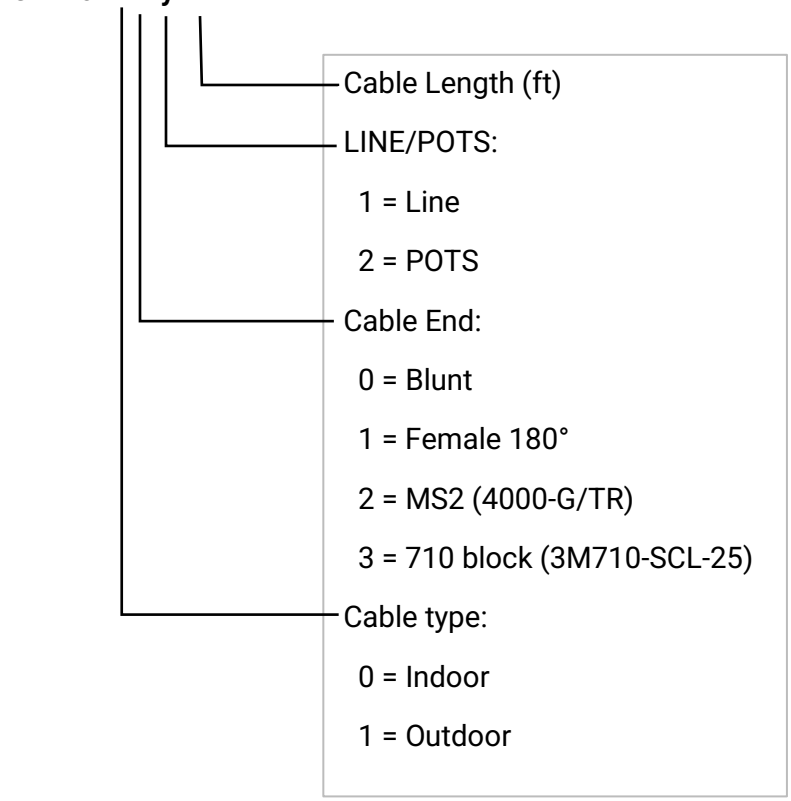
MAQS Components compliant to GR1089, GR63 ATIS-0600026.2010(R2015) & UL 497, CSA C22.2 No. 226

Cabinet compliant to, GR487 & UL 50, UL 50E, CSA 94.1 & 94.2

MAQS Cables

Legend Identifier

CA-701x-x y zz



Cable Part Numbers and descriptions

	Termination Connector				
MAQS Cable Series	**Style**	**Type**	**LINE/POTS**	**Cable Length (ft) (1 - 99)**	**Ordering Part #**
CA-7010	Blunt	Blunt	LINE		CA-7010-01XX
CA-7010	RJ-21	Female - 180	LINE		CA-7010-11XX
CA-7010	3M-MS2	4000-G/TR Super-Mini Module (Gel)	LINE		CA-7010-21XX
CA-7010	3M-710	3M710-SCL-25	LINE		CA-7010-31XX
CA-7010	Blunt	Blunt	POTS		CA-7010-02XX
CA-7010	RJ-21	Female - 180	POTS		CA-7010-12XX
CA-7010	3M-MS2	4000-G/TR Super-Mini Module (Gel)	POTS		CA-7010-22XX
CA-7010	3M-710	3M710-SCL-25	POTS		CA-7010-32XX

	Termination Connector				
MAQS Cable Series	**Style**	**Type**	**LINE/POTS**	**Cable Length (ft) (1 - 99)**	**Ordering Part #**
CA-7011	Blunt	Blunt	LINE		CA-7011-01XX
CA-7011	RJ-21	Female - 180	LINE		CA-7011-11XX
CA-7011	3M-MS2	4000-G/TR Super-Mini Module (Gel)	LINE		CA-7011-21XX
CA-7011	3M-710	3M710-SCL-25	LINE		CA-7011-31XX
CA-7011	Blunt	Blunt	POTS		CA-7011-02XX
CA-7011	RJ-21	Female - 180	POTS		CA-7011-12XX
CA-7011	3M-MS2	4000-G/TR Super-Mini Module (Gel)	POTS		CA-7011-22XX
CA-7011	3M-710	3M710-SCL-25	POTS		CA-7011-32XX