

Structural Support Products

Microwave Antenna Application Product Selection Guide

March 2024



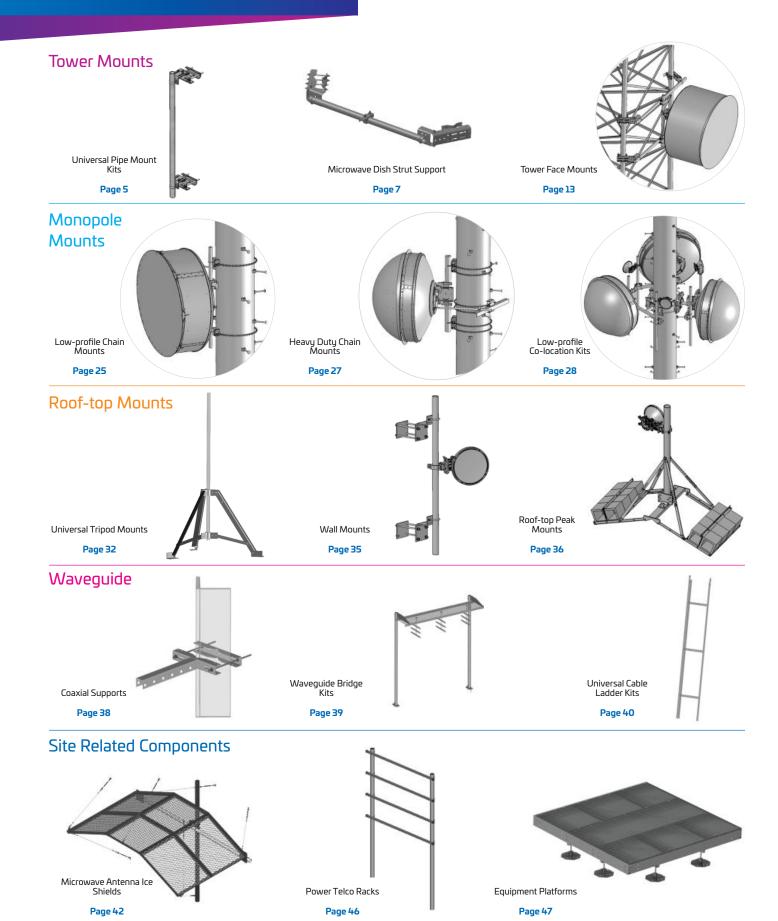


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COMMSCOPE®

SELECTION GUIDE





TOWER MOUNTS

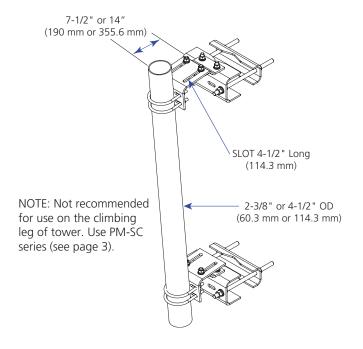
- Tower Leg Mounting Solutions
- Tower Face Mounting Solutions

Universal Slidi	ing Pipe Mount Kits
Application:	Lattice towers
Size:	2-3/8" (60.3 mm) OD or 4-1/2" (114.3 mm) OD
Design:	Pipe with saddle mount and adjustable clamps
Feature:	Universal sliding bracket with up to 7° of taper
Mounts to:	Straight or tapered legs up to 16" (406.4 mm) OD, 16" (406.4 mm) angle 60°, or 12" (304.8 mm) angle 90°
Material:	Hot dip galvanized steel
Includes:	Universal saddle mount, sliding pipe mount brackets, with or without pipe
Order Separately:	Pipes for base kits

Wind Rating*: 120 mph (BWS) per latest revision of ANSI/TIA-222 at 150' AGL

^{*} Typical installation of one 8' microwave antenna with strut/stiff arm

14011171116		c. l "	CommScope
MOUNTING	Pipes Included	Stand-off	Material ID
For Round or 60° Angle	None		PM-SU2-B
Legs up to 8" (203.2	2-3/8" OD x 72" (60.3 mm OD x 1.8 m)	N/A	PM-SU2-72
mm) or 90° Angle Legs up to 6"	2-3/8" OD x 96" (60.3 mm OD x 2.4 m)		PM-SU2-96
(152.4 mm)	None	14"	PM-SU2L-B
(132.4 11111)	2-3/8" OD x 72" (60.3 mm OD x 1.8 m)	(355.6 mm)	<u>PM-SU2L-72</u>
	2-3/8" OD x 96" (60.3 mm OD x 2.4 m)	(555.0 11111)	PM-SU2L-96
	None		PM-SU4-B
	4-1/2" OD x 63" (114.3 mm OD x 1.6 m)	N/A	PM-SU4-63
	4-1/2" OD x 96" (114.3 mm OD x 2.4 m)		PM-SU4-96
	None		PM-SU4L-B
	4-1/2" OD x 63" (114.3 mm OD x 1.6 m)	14" (355.6 mm)	PM-SU4L-63
	4-1/2" OD x 96" (114.3 mm OD x 2.4 m)	(333.6 11111)	PM-SU4L-96
For Round or 60° Angle	None		PML-SU2-B
Legs up to 16" (406.4	2-3/8" OD x 72" (60.3 mm OD x 1.8 m)	N/A	PML-SU2-72
mm) or	2-3/8" OD x 96" (60.3 mm OD x 2.4 m)		PML-SU2-96
90° Angle Legs up to 12" (304.8 mm)	None		PML-SU2L-B
(304.8 11111)	2-3/8" OD x 72" (60.3 mm OD x 1.8 m)	14"	PML-SU2L-72
	2-3/8" OD x 96" (60.3 mm OD x 2.4 m)	(355.6 mm)	PML-SU2L-96
	None		PML-SU4-B
	4-1/2" OD x 63" (114.3 mm OD x 1.6 m)	N/A	PML-SU4-63
	4-1/2" OD x 96" (114.3 mm OD x 2.4 m)		PML-SU4-96
	None		PML-SU4L-B
	4-1/2" OD x 63" (114.3 mm OD x 1.6 m)	14"	PML-SU4L-63
	4-1/2" OD x 96" (114.3 mm OD x 2.4 m)	(355.6 mm)	PML-SU4L-96





CommScope

TOWER MOUNTS Leg Mounting Solutions

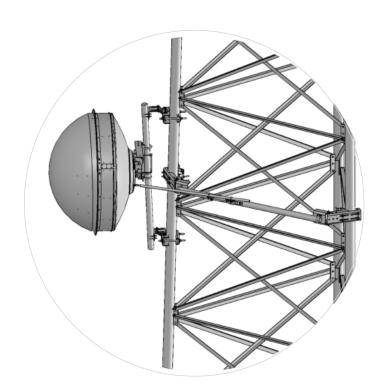
Universal Pipe	Mount Kits
Application:	Antenna leg mounting for round or angle towers
Size:	2-3/8" (60.3 mm) OD or 4-1/2" (114.3 mm) OD
Design:	Pipe with saddle mount and adjustable clamps
Feature:	Open face taper adjustment
Mounts to:	Straight or tapered legs up to 16" (406.4 mm) OD, 16" (406.4 mm) angle 60°, or 12" (304.8 mm) angle 90°
Material:	Hot dip galvanized steel
Includes:	Universal saddle mount, taper adjustment brackets, with or without pipe
Order Separately:	Pipes for base kits

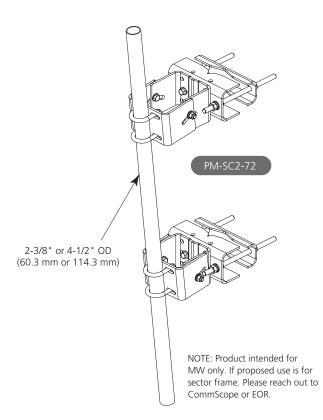
Mounting Pipes Included		Material ID	
For Round or 60° Angle Legs up to 8"	None	PM-SC2-B	
(203.2 mm) or	2-3/8" OD x 72" (60.3 mm OD x 1.8 m)	PM-SC2-72	
90° Angle Legs up to 6" (152.4 mm)	2-3/8" OD x 96" (60.3 mm OD x 2.4 m)	PM-SC2-96	
	None	PM-SC4-B	
	4-1/2" OD x 63" (114.3 mm OD x 1.6 m)	PM-SC4-63	
	4-1/2" OD x 96" (114.3 mm OD x 2.4 m)	PM-SC4-96	
For Round or 60° Angle Legs up to 16"	None	PML-SC2-B	
(406.4 mm) or 90° Angle Legs up to 12" (304.8 mm)	2-3/8" OD x 72" (60.3 mm OD x 1.8 m)	PML-SC2-72	
	2-3/8" OD x 96" (60.3 mm OD x 2.4 m)	PML-SC2-96	
	None	PML-SC4-B	
	4-1/2" OD x 63" (114.3 mm OD x 1.6 m)	PML-SC4-63	
	4-1/2" OD x 96" (114.3 mm OD x 2.4 m)	PML-SC4-96	

Universal Sliding Pipe Mount Kits

Wind Rating*: 120 mph (BWS) per latest revision of ANSI/TIA-222 at 150' AGL

^{*} Typical installation of one 8' microwave antenna with strut/stiff arm



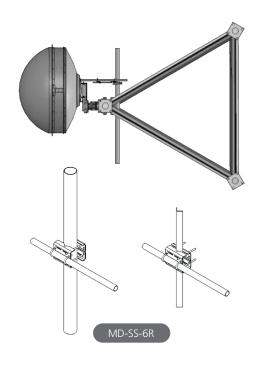


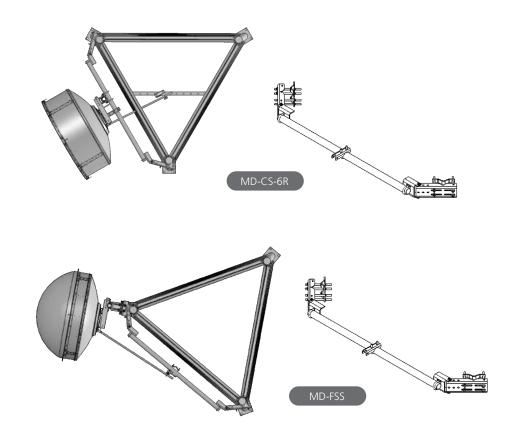
Microwave Dish Support		
Application:	Structural strut supports for round or angle tower legs	
Size:	4', 6', 8', or 10' (1.2 m, 1.8 m, 2.4 m, or 3.1 m) Tower faces	
Design:	Round or angle strut support kits	
Feature:	Tower face strut support kits	
Mounts to:	Straight or tapered legs up to 16" (406.4 mm) OD, 16" (406.4 mm) angle 60°, or 12" (304.8 mm) angle 90°	
Material:	Hot dip galvanized steel	

Tower Face Mounted Microwave Dish Channel Support Kit			
Mounting	Pipes Included	CommScope Material ID	
For Round or 60° Angle Legs up to 8" (203.2 mm) or 90° Angle Legs up to 6" (152.4 mm)	6' (1.8 m)	MD-CS-6R	
	8' (2.4 m)	MDL-CS-8R	
	10' (3.1 m)	MD-CS-10R	
For Round or 60° Angle Legs up to 16" (406.4 mm) or	6' (1.8 m)	MDL-CS-6R	
90° Angle Legs up to 12" (304.8 mm)	8' (2.4 m)	MDL-CS-8R	
	10' (3.1 m)	MDL-CS-10R	

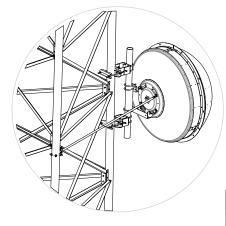
lower Leg Mounted Microwave Dish Channel Support Kit			
Mounting	Pipes Included	CommScope Material ID	
For Round or 60° Angle Legs up to 8" (203.2 mm) or 90° Angle Legs up to 6" (152.4 mm)	6' (1.8 m) 8' (2.4 m)	MD-SS-6R MD-SS-8R	
For Round or 60° Angle Legs up to 16" (406.4 mm) or 90° Angle Legs up to 12" (304.8 mm)	6' (1.8 m) 8' (2.4 m)	MDL-SS-6R MDL-SS-8R	

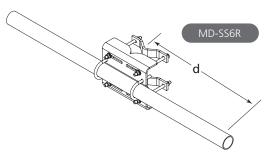
Microwave Dish Face Strut Support		
Dimensions	CommScope Material ID	
3/8" x 3" x 3" x 5' 6" (9.5 mm x 76.2 mm x 76.2 mm x 1.7m)	MD-FSS	



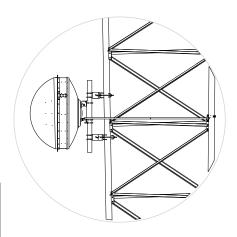


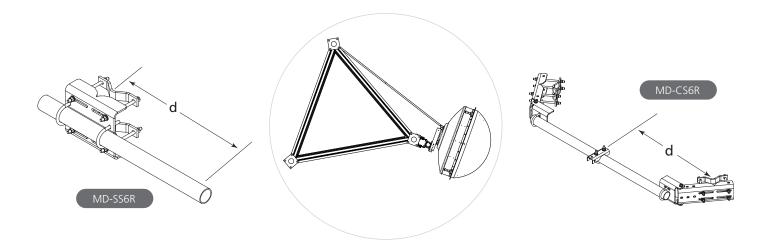
NOTE: It is assumed that a licensed and qualified structural engineer has reviewed the tower structure for the loads created by the microwave antennas and strut supports.





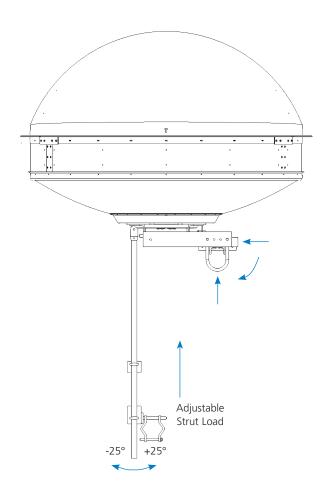
USAGE	MD-SS6R	MD-SS8R	MD-SS10R
Saddle Mount Attached in Center of Pipe			
Max. distance from leg (d)	36"	48"	60"
Acceptable Load	2500 lb	2000 lb	1500 lb

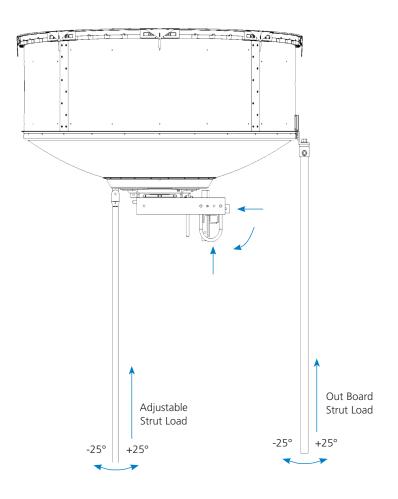




USAGE	MD-SS6R	MD-SS8R	MD-SS10R
Saddle Mount Attached at One End of Pipe			
Max. distance from leg (d)	60"	84"	108"
Acceptable Load	1500 lb	1000 lb	500 lb

USAGE	MD-CS6R	MD-CS8R	MD-CS10R
Pipe Attached at Each End to Tower Leg Mount			
Max. distance from legs (d)	36"	48"	60"
Acceptable Load	2500 lb	2500 lb	2500 lb





Size ft. (m)	Adjustable Strut Force, lb (N)	Fixed Strut Force, lb (N)
4 (1.2)	500 (2200)	_
6 (1.8)	1400 (9207)	_
8 (2.4)	958 (4261)	1265 (5627)
10 (3.0)	1320 (5871)	1987 (8838)
12 (3.7)	1799 (8001)	2585 (11498)

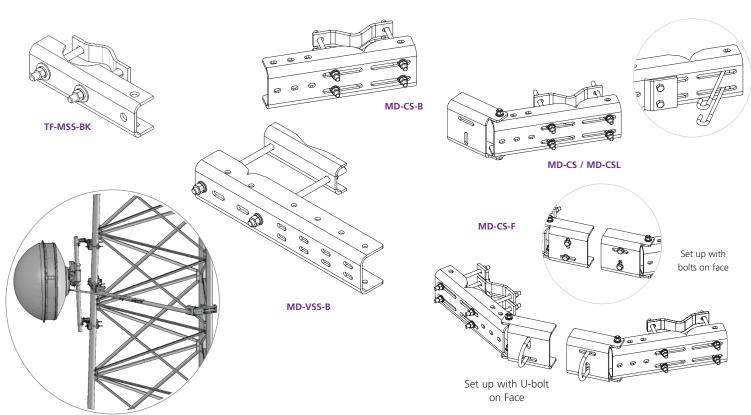
A 4' dish strut/stiff arm can see in survival winds up to 600 lbs. of load, and in working load wind conditions the mount cannot flex or deflect more than 0.1". A six foot dish strut/stiff arm can see in survival winds up to 1400 lbs of load, and in working load wind conditions the mount cannot flex or deflect more than 0.1". In addition this arm must have a horizontal angle of less than 25° and less than 5° in the vertical direction."

(Illustration on Page 22)

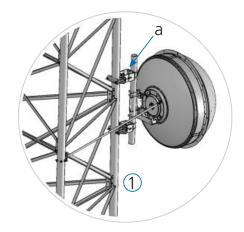
Microwave St	rut Support
Application:	Structural strut supports for round or angle tower legs
Size:	21" (533.4 mm) channel
Design:	Universal support bracket
Feature:	Universal strut attachment
Mounts to:	Straight or tapered legs up to 16" (406.4 mm) OD, 16" (406.4 mm) angle 60°, or 12" (304.8 mm) angle 90°
Material:	Hot dip galvanized steel
Includes:	Support bracket, attachment hardware
Order Separately:	Microwave strut pipe or angle, u-bolt

Microwave Strut Attachment Bracket				
Pipe Compatibility	CommScope Material ID			
For 2-3/8" (60.3 mm) OD Pipe	TF-MSS-BK2			
For 3-1/2" (88.9 mm) OD Pipe	TF-MSS-BK			
For 4-1/2" (114.3 mm) OD Pipe	TF-MSS-BK45			
For 2-3/8" - 3-1/2" ((60.3 -88.9 mm) OD Pipe	TF-MSS-BK-U			

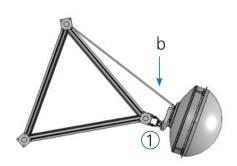
Microwave Dish Strut Support Brack	et	
Mounting	Pipes Compatibility	CommScope Material ID
For Round or 60° Angle Legs up to 8" (203.2 mm) or	Universal - for Mounting up to 3-1/2 " (88.9 mm) pipes	MD-CS
90° Angle Legs up to 6" (152.4 mm)	Universal - for Mounting up to 4-1/2 " (114.3 mm) pipes	MD-CSL
	Face Mounted (Kit of 2) - for Mounting up to 3-1/2" (88.9 mm) pipes	MD-CS-F
	Face Mounted (Kit of 2) - for Mounting up to 3-1/2" (88.9 mm) pipes	MD-CS-B
For Round or 60° Angle Legs up to 16" (406.4 mm) or	Universal - for Mounting up to 3-1/2 " (88.9 mm) pipes	MDL-CS
90° Angle Legs up to 12" (304.8 mm)	Universal - for Mounting up to 4-1/2" (114.3 mm) pipes	MDL-CSL
	Face Mounted (Kit of 2) - for Mounting up to 3-1/2" (88.9 mm) pipes	MDL-CS-F
	Face Mounted (Kit of 2) - for Mounting up to 3-1/2" (88.9 mm) pipes	MDL-CS-B
Microwave Dish Strut Vertical Support Bracket		MD-VSS-B
Tie Back Support Angle -3/8" x 4" x 4" x 48"		MD-CSA4
Fie Back Support Angle - 3/8" x 4" x 4" x 72"		MD-CSA6
Tie Back Support Angle -3/8" x 4" x 4" x 96"		MD-CSA8

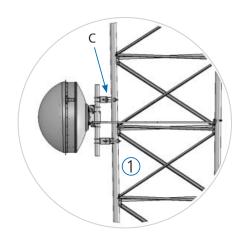


TOWER MOUNTS Application Guide



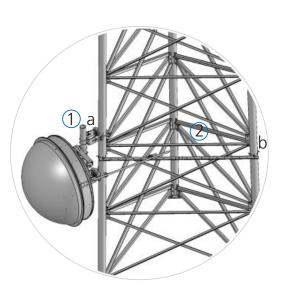
- a. Open face allows safety climb to pass through
- b. Strut returns back to tower at recommended
- c. Taper adjustment allows for vertical mounting solution



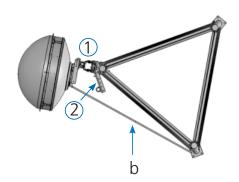


Key	Part Number	Description	Page #
1	PM-SC4-63	Universal Pipe Mount Kit With Open Face	6
2	MD-VSS	Microwave Dish Vertical Strut Support	10
3	MD-FSS	Microwave Dish Face Strut Support	7

^{*} Shown with CommScope antennas and supports

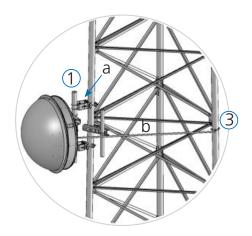


IMPORTANT TO KNOW: A competent and trained person should always inspect the safety guide on every tower before use.

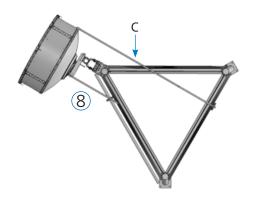


- a. Sliding taper brackets allow for 7° of non-incremental adjustmentb. Strut returns straight back to tower

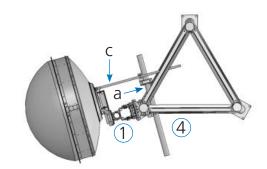
Note: Universal saddle mounts up to 8" (203.2 mm) dia. straight or taper legs

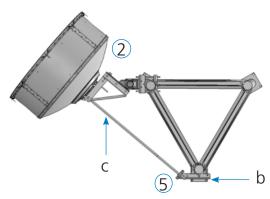


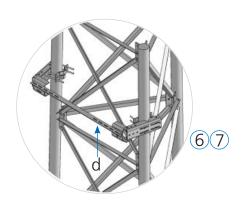
TOWER MOUNTS Application Guide



- a. MD-SS-6R Provides strut support for offset single leg attachments
- b. MD-CS-B Universal strut support for round or angle legs
- c. Strut returns straight back to tower at recommended angle
- d. MD-CS-F Will allow MD-CSA6 to attach to tower face with universal attachment

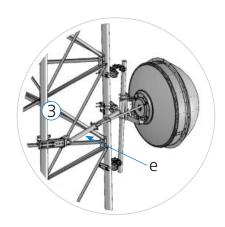


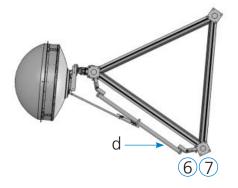




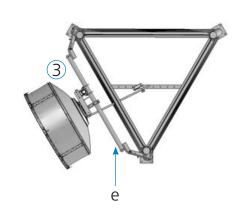
Key	Part Number	Description	Page #
1	PM-SC4-63	Universal Pipe Mount Kit With Open Face	6
2	PM-SU4-63	Universal Pipe Mount Kit	5
3	MD-CS-6R	Tower Face Mounted Dish Strut Support Kit	7
4	MD-SS-6R	Tower Leg Mounted Dish Strut Support Kit	7
5	MD-CS-B	Microwave Dish Strut Support Bracket	10
6	MD-CS-F	Tower Face Mounted Dish Strut Support Kit	10
7	MD-CSA6	Microwave Dish Strut Support Angle	10
8	TF-M3-8	Tower Face Mount with Dual Face Support	13

^{*} Shown with CommScope antennas and supports



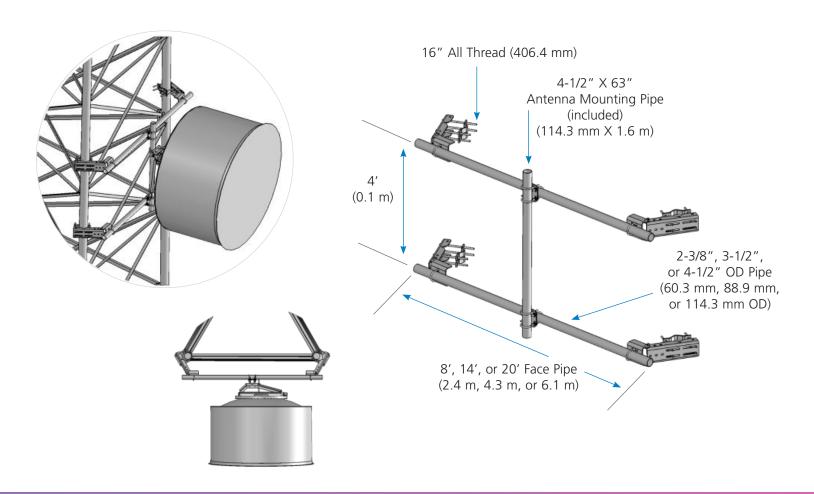


e. MD-CS-6R Provides strut support for the tower face with universal leg attachment brackets

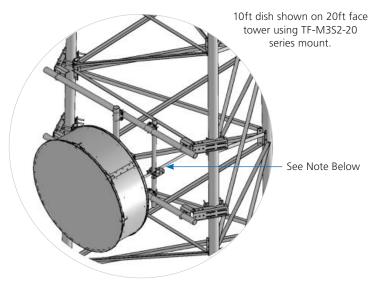


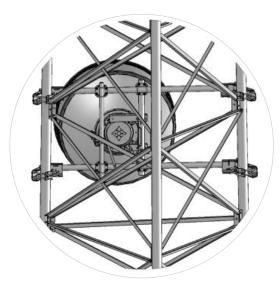
Tower Face M	lounts
Application:	Microwave antenna face mounting for round or angle, straight or tapered legs
Size:	8' (2.4 m), 14' (4.2 m), or 20' (6.1 m) face widths
Design:	Pipe with saddle mounts and adjustable clamps
Feature:	Universal taper adjustment for up to 9° of taper with 48" of separation
Mounts to:	Straight or tapered legs up to 16" (406.4 mm) OD, 16" (406.4 mm) angle 60°, or 12" (304.8 mm) angle 90°
Material:	Hot dip galvanized steel
Includes:	Universal saddle mounts, slider brackets, pipe, crossover plates, hardware
Order Separately:	Strut support kits, stand-off brackets

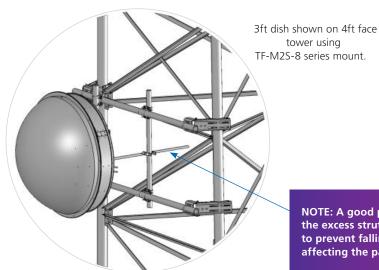
Tower Face Mount W	ith Dual Face Supports		
MOUNTING	Face Support Dimensions	Pipe Included	CommScope Material ID
For Round or 60° Angle	8' x 2-3/8" OD (2.4 m x 60.3 mm OD)		<u>TF-M2-8</u>
Legs up to 8" (203.2	14' x 2-3/8" OD (4.3 m x 60.3 mm OD)		<u>TF-M2-14</u>
mm) or 90° Angle Legs up to 6"	20' x 2-3/8" OD (6.1 m x 60.3 mm OD)]	<u>TF-M2-20</u>
(152.4 mm)	8' x 3-1/2" OD (2.4 m x 88.9 mm OD)	4-1/2" OD x 63" (114.3 mm OD x 1.6	<u>TF-M3-8</u>
	14' x 3-1/2" OD (4.3 m x 88.9 mm OD)	m) Antenna Pipe	<u>TF-M3-14</u>
	20' x 3-1/2" OD (6.1 m x 88.9 mm OD)	,	<u>TF-M3-20</u>
	8' x 4-1/2" OD (2.4 m x 114.3 mm OD)		<u>TF-M4-8</u>
	14' x 4-1/2" OD (4.3 m x 114.3 mm OD)		<u>TF-M4-14</u>
For Round or 60° Angle	8' x 2-3/8" OD (2.4 m x 60.3 mm OD)		<u>TFL-M2-8</u>
Legs up to 16" (406.4	14' x 2-3/8" OD (4.3 m x 60.3 mm OD)		<u>TFL-M2-14</u>
mm) or 90° Angle Legs up to	20' x 2-3/8" OD (6.1 m x 60.3 mm OD)		<u>TFL-M2-20</u>
12" (304.8 mm)	8' x 3-1/2" OD (2.4 m x 88.9 mm OD)	4-1/2" OD x 63" (114.3 mm OD x 1.6	<u>TFL-M3-8</u>
	14' x 3-1/2" OD (4.3 m x 88.9 mm OD)	m) Antenna Pipe	<u>TFL-M3-14</u>
	20' x 3-1/2" OD (6.1 m x 88.9 mm OD)		<u>TFL-M3-20</u>
	8' x 4-1/2" OD (2.4 m x 114.3 mm OD)		<u>TFL-M4-8</u>
	14' x 4-1/2" OD (4.3 m x 114.3 mm OD)		<u>TFL-M4-14</u>



		Tower Face Mount						
Microwave Antenna Diameter	TF-M2-8	TF-M2-14	TF-M2-20	TF-M3-8	TF-M3-14	TF-M3-20	TF-M4-8	TF-M4-14
2' (0.6 m)	Х	Х	Х	Х	Х	Х	Х	Х
4' (1.2 m)	X	X	X	Χ	X	Х	Х	X
6' (1.8 m)	Х	-	-	Х	Х	Х	Х	Х
8' (2.4 m)	-	-	-	Х	Х	Х	Х	Х
10' (3.1 m)	-	-	-	Х	Х	Х	Х	Х
12' (3.7 m)	-	-	-	Х	Х	-	Х	Х
15' (4.6 m)	-	-	-	-	-	-	Х	-



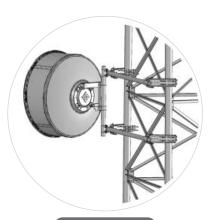




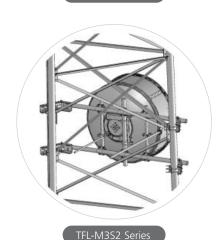
NOTE: A good practice, after the path is set, is to cut the excess strut/stiff arm 12" past the mount point, to prevent falling ice from hitting the strut and affecting the path. Treat cut edge per ASTM A123.

Face Mounts \ Support	With Single Strut or Dual Strut
Application:	Microwave antenna face mounting for round or angle, straight or tapered legs
Size:	8', 14', or 20' (2.4 m, 4.2 m, or 6.1 m) Face widths
Design:	Pipe with saddle mounts and adjustable clamps
Feature:	Universal taper adjustment for up to 9° of taper with 48" (1.2 m) of separation
Mounts to:	Straight or tapered legs up to 16" (406.4 mm) OD, 16" (406.4 mm) angle 60°, or 12" (304.8 mm) angle 90°
Material:	Hot dip galvanized steel
Includes:	Universal saddle mounts, slider brackets, pipe, crossover plates, tieback supports, hardware
Order Separately:	Stand-off brackets

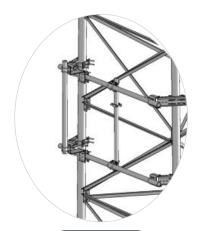
Tower Face M	ounts With Single Strut Support			
Mounting	Face Support Dimensions	Strut Support Included	Pipe Included	CommScope Material ID
	8' x 2-3/8" OD (2.4 m x 60.3 mm OD)			TF-M2S-8
For Round or	14' x 2-3/8" OD (4.3 m x 60.3 mm OD)			TF-M2S-14
60° Angle Legs	20' x 2-3/8" OD (6.1 m x 60.3 mm OD)		4-1/2" OD x	TF-M2S-20
up to 8" (203.2	8' x 3-1/2" OD (2.4 m x 88.9 mm OD)	One 2-3/8" x 63"	63" (114.3 mm OD x 1.6 m) Antenna Pipe	<u>TF-M3S-8</u>
mm) or 90° Angle Legs	14' x 3-1/2" OD (4.3 m x 88.9 mm OD)	(60.3 mm x 1.6 m) Strut Support		<u>TF-M3S-14</u>
up to 6" (152.4	20' x 3-1/2" OD (6.1 m x 88.9 mm OD)	эн ас зарроге		<u>TF-M3S-20</u>
mm)	8' x 4-1/2" OD (2.4 m x 114.3 mm OD)			<u>TF-M4S-8</u>
	14' x 4-1/2 " OD (4.3 m x 114.3 mm OD)			TF-M4S-14
	8' x 2-3/8" OD (2.4 m x 60.3 mm OD)			TFL-M2S-8
For Round	14' x 2-3/8" OD (4.3 m x 60.3 mm OD)			TFL-M2S-14
or 60° Angle	20' x 2-3/8" OD (6.1 m x 60.3 mm OD)		4-1/2" OD x	TFL-M2S-20
Legs up to 16"	8' x 3-1/2" OD (2.4 m x 88.9 mm OD)	One 2-3/8" x 63" (60.3 mm x 1.6 m)	63"	TFL-M3S-8
(406.4 mm) or 90° Angle	14' x 3-1/2 " OD (4.3 m x 88.9 mm OD)	Strut Support	(114.3 mm OD x 1.6 m)	TFL-M3S-14
Legs up to 12"	20' x 3-1/2" OD (6.1 m x 88.9 mm OD)		Antenna Pipe	TFL-M3S-20
(304.8 mm)	8' x 4-1/2" OD (2.4 m x 114.3 mm OD)			TFL-M4S-8
	14' x 4-1/2" OD (4.3 m x 114.3 mm OD)			TFL-M4S-14



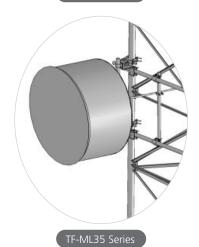
TF-M3S Series



Mounting	Face Support Dimensions	Strut Support Included	Pipe Included	CommScope Material ID
	8' x 2-3/8" OD (2.4 m x 60.3 mm OD)			<u>TF-M2S2-8</u>
For Round or	14' x 2-3/8" OD (4.3 m x 60.3 mm OD)			TF-M2S2-14
60° Angle Legs	20' x 2-3/8" OD (6.1 m x 60.3 mm OD)		4-1/2" OD x	TF-M2S2-20
up to 8" (203.2	8' x 3-1/2" OD (2.4 m x 88.9 mm OD)	Two 2-3/8" x 63"	63" (114.3 mm OD x 1.6 m) Antenna Pipe	<u>TF-M3S2-8</u>
mm) or 90° Angle Legs	14' x 3-1/2 " OD (4.3 m x 88.9 mm OD)	(60.3 mm x 1.6 m) Strut Support		TF-M3S2-14
up to 6" (152.4	20' x 3-1/2" OD (6.1 m x 88.9 mm OD)			TF-M3S2-20
mm)	8' x 4-1/2" OD (2.4 m x 114.3 mm OD)			<u>TF-M4S2-8</u>
	14' x 4-1/2 " OD (4.3 m x 114.3 mm OD)			TF-M4S2-14
	8' x 2-3/8" OD (2.4 m x 60.3 mm OD)			TFL-M2S2-8
For Round	14' x 2-3/8" OD (4.3 m x 60.3 mm OD)			TFL-M2S2-1
or 60° Angle	20' x 2-3/8" OD (6.1 m x 60.3 mm OD)		4-1/2" OD x	TFL-M2S2-2
Legs up to 16"	8' x 3-1/2" OD (2.4 m x 88.9 mm OD)	Two 2-3/8" x 63"	63"	TFL-M3S2-8
(406.4 mm) or 90° Angle	14' x 3-1/2" OD (4.3 m x 88.9 mm OD)	(60.3 mm x 1.6 m) Strut Support	(114.3 mm OD x 1.6 m)	TFL-M3S2-1
Legs up to 12"	20' x 3-1/2 " OD (6.1 m x 88.9 mm OD)		Antenna Pipe	TFL-M3S2-2
(304.8 mm)	8' x 4-1/2" OD (2.4 m x 114.3 mm OD)			TFL-M4S2-8
	14' x 4-1/2" OD (4.3 m x 114.3 mm OD)			TFL-M4S2-1







Mounting	Face Support Dimensions	Standoff	Pipe Included	CommScope Material ID
	8' x 2-3/8" OD (2.4 m x 60.3 mm OD)			TF-ML2-8
For Round or	14' x 2-3/8" OD (4.3 m x 60.3 mm OD)			TF-ML2-14
60° Angle Legs	20' x 2-3/8" OD (6.1 m x 60.3 mm OD)		4-1/2" OD x	<u>TF-ML2-20</u>
up to 8" (203.2 mm) or	8' x 3-1/2" OD (2.4 m x 88.9 mm OD)	14" (355.6 mm)	63" (114.3 mm OD x 1.6 m) Antenna Pipe	TF-ML3-8
90° Angle Legs	14' x 3-1/2 " OD (4.3 m x 88.9 mm OD)	Stand-off		TF-ML3-14
up to 6" (152.4	20' x 3-1/2" OD (6.1 m x 88.9 mm OD)			TF-ML3-20
mm)	8' x 4-1/2" OD (2.4 m x 114.3 mm OD)			<u>TF-ML4-8</u>
	14' x 4-1/2" OD (4.3 m x 114.3 mm OD)			TF-ML4-14
	8' x 2-3/8" OD (2.4 m x 60.3 mm OD)			TFL-ML2-8
For Round	14' x 2-3/8" OD (4.3 m x 60.3 mm OD)		4-1/2" OD x 63" (114.3 mm OD x 1.6 m) Antenna Pipe	TFL-ML2-14
or 60° Angle	20' x 2-3/8" OD (6.1 m x 60.3 mm OD)			TFL-ML2-20
Legs up to 16"	8' x 3-1/2" OD (2.4 m x 88.9 mm OD)	14" (355.6 mm)		TFL-ML3-8
(406.4 mm) or 90° Angle	14' x 3-1/2" OD (4.3 m x 88.9 mm OD)	Stand-off		TFL-ML3-14
Legs up to 12"	2" 20' x 3-1/2" OD (6.1 m x 88.9 mm OD)			TFL-ML3-20
(304.8 mm)	8' x 4-1/2" OD (2.4 m x 114.3 mm OD)			TFL-ML4-8
	14' x 4-1/2" OD (4.3 m x 114.3 mm OD)			TFL-ML4-14

Tower Face Mounts With D	Oual Face Supports , 14" Standoff, & Single St	rut Support			
Mounting	Face Support Dimensions	Strut Support Included	Standoff	Pipe Included	CommScope Material ID
	8' x 2-3/8" OD (2.4 m x 60.3 mm OD)		14" (355.6 mm) Stand-off		TF-ML2S-8
	14' x 2-3/8" OD (4.3 m x 60.3 mm OD)				<u>TF-ML2S-14</u>
For Round or 60° Angle Legs	20' x 2-3/8" OD (6.1 m x 60.3 mm OD)			4-1/2" OD x 63" (114.3 mm OD x 1.6 m) Antenna Pipe	TF-ML2S-20
up to 8" (203.2 mm) or	8' x 3-1/2" OD (2.4 m x 88.9 mm OD)	One 2-3/8" x 63"			TF-ML3S-8
90° Angle Legs up to 6"	14' x 3-1/2 " OD (4.3 m x 88.9 mm OD)	(60.3 mm x 1.6 m) Strut Support			TF-ML3S-14
(152.4 mm)	20' x 3-1/2" OD (6.1 m x 88.9 mm OD)				<u>TF-ML3S-20</u>
	8' x 4-1/2" OD (2.4 m x 114.3 mm OD)				TF-ML4S-8
	14' x 4-1/2 " OD (4.3 m x 114.3 mm OD)				TF-ML4S-14
	8' x 2-3/8" OD (2.4 m x 60.3 mm OD)				TFL-ML2S-8
	14' x 2-3/8" OD (4.3 m x 60.3 mm OD)	1		4-1/2" OD x 63" (114.3 mm OD x	TFL-ML2S-14
For Round or 60° Angle Legs	20' x 2-3/8" OD (6.1 m x 60.3 mm OD)				TFL-ML2S-20
up to 16" (406.4 mm) or	8' x 3-1/2" OD (2.4 m x 88.9 mm OD)	One 2-3/8" x 63"	14" (355.6 mm)		TFL-ML3S-8
90° Angle Legs up to 12"	14' x 3-1/2 " OD (4.3 m x 88.9 mm OD)	(60.3 mm x 1.6 m) Strut Support	Stand-off	1.6 m)	TFL-ML3S-14
(304.8 mm)	20' x 3-1/2" OD (6.1 m x 88.9 mm OD)	3ac support		Antenna Pipe	TFL-ML3S-20
	8' x 4-1/2" OD (2.4 m x 114.3 mm OD)				TFL-ML4S-8
	14' x 4-1/2" OD (4.3 m x 114.3 mm OD)				TFL-ML4S-14

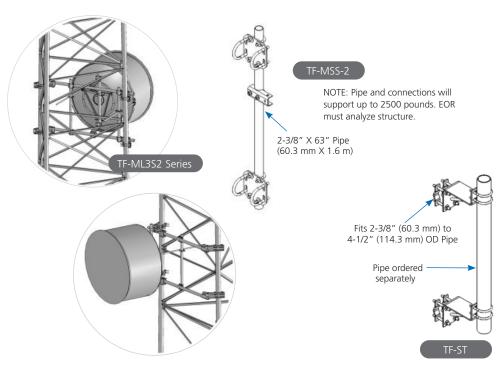
Mounting	Face Support Dimensions	Strut Support Included	Standoff	Pipe Included	CommScope Material ID
	8' x 2-3/8" OD (2.4 m x 60.3 mm OD)				TF-ML2S2-8
	14' x 2-3/8" OD (4.3 m x 60.3 mm OD)				TF-ML2S2-14
For Round or 60° Angle Legs	20' x 2-3/8" OD (6.1 m x 60.3 mm OD)			4-1/2" OD x 63" (114.3 mm OD x 1.6 m) Antenna Pipe	TF-ML2S2-20
up to 8" (203.2 mm) or	8' x 3-1/2" OD (2.4 m x 88.9 mm OD)	Two 2-3/8" x 63"	14" (355.6 mm)		TF-ML3S2-8
90° Angle Legs up to 6"	14' x 3-1/2" OD (4.3 m x 88.9 mm OD)	(60.3 mm x 1.6 m) Strut Supports	Stand-off		TF-ML3S2-14
(152.4 mm)	20' x 3-1/2" OD (6.1 m x 88.9 mm OD)	Strat Supports			TF-ML3S2-20
	8' x 4-1/2" OD (2.4 m x 114.3 mm OD)				<u>TF-ML4S2-8</u>
	14' x 4-1/2" OD (4.3 m x 114.3 mm OD)				TF-ML4S2-14
	8' x 2-3/8" OD (2.4 m x 60.3 mm OD)			4-1/2" OD x 63" (114.3 mm OD x	TFL-ML2S2-8
	14' x 2-3/8" OD (4.3 m x 60.3 mm OD)				TFL-ML2S2-14
For Round or 60° Angle Legs	20' x 2-3/8" OD (6.1 m x 60.3 mm OD)				TFL-ML2S2-20
up to 16" (406.4 mm) or	8' x 3-1/2" OD (2.4 m x 88.9 mm OD)	Two 2-3/8" x 63"	14" (355.6 mm)		TFL-ML3S2-8
90° Angle Legs up to 12"	14' x 3-1/2" OD (4.3 m x 88.9 mm OD)	(60.3 mm x 1.6 m) Strut Supports	Stand-off	1.6 m)	TFL-ML3S2-14
304.8 mm)	20' x 3-1/2" OD (6.1 m x 88.9 mm OD)	Strat Supports		Antenna Pipe	TFL-ML3S2-20
	8' x 4-1/2" OD (2.4 m x 114.3 mm OD)				TFL-ML4S2-8
	14' x 4-1/2" OD (4.3 m x 114.3 mm OD)				TFL-ML4S2-14

Tower Face M	ount Strut Support Kits
Application:	Support for mounting strut of TF-M series face mount
Size:	Three versions
Design:	Pipe with crossover plates
Feature:	Can be adjusted to mount anywhere on tower face mount
Mounts to:	Tower face mount kits
Material:	Hot dip galvanized steel
Includes:	Plates, strut support, hardware, pipe
Order Separately:	Tower face mount kit

Tower Face Mount Stand-off Bracket		
Application:	Support for standing microwave antenna off of TF-M series face mount	
Size:	4-1/2" (114.3 mm) OD	
Design:	4-1/2" (114.3 mm) OD pipe mount stand-off	
Feature:	14" (355.6 mm) stand-off	
Mounts to:	Tower face mount kits	
Material:	Hot dip galvanized steel	
Includes:	Stand-off, attachment hardware	
Order Separately:	Tower face mount kit	

lower Face Mount Stand-off Bracket				
Mounting	Stand-off	CommScope Material ID		
2-3/8" (60.3 mm) to 4-1/2" (114.3 mm) OD Pipe	14" (355.6 mm) Stand- off	TF-ST		

Tower Face Mount Strut Support Kits			
Mounting	Pipe Included	CommScope Material ID	
2-3/8" OD x 2-3/8" OD (60.3 mm x 60.3 mm)	One 2-3/8" x 63" (60.3 mm x 1.6 m) Pipe	TF-MSS-2	
For Round or 60° Angle Legs up to 16" (406.4 mm) or 90° Angle Legs up to 12" (304.8 mm)		TF-MSS-3	
Microwave Dish Strut Vertical Support Bracket		TF-MSS-4	

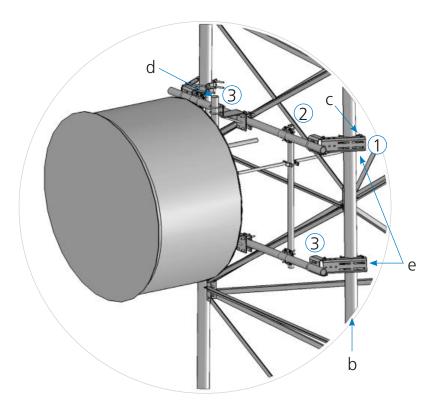




Description	Pipe OD	Pipe Length	Material Thickness	CommScope Material ID
		24"	.120"	MT-648
		36"	.120"	MT-649
		48"	.120"	MT-650
		63"	.120"	MT-650-63
		96"	.154"	MT651096154
	2-3/8"	96"	.218"	MT651096218
		126"	.154"	MT651126154
		126"	.218"	MT651126218
		150"	.154"	MT651150154
		150"	.218"	MT651150218
		174"	.218"	MT651174218
		48"	.203"	MT-546-48
		84"	.120"	MT546084120
		84"	.203"	MT54684
		96"	.120"	MT54696120
		96"	.203"	MT54696
		96"	.276"	MT546096276
		126"	.120"	MT546126120
1 ' 15'	2-7/8"	126"	.203"	MT-546-126
alvanized Pipe rade A500C - 46 KSI		126"	.276"	MT546126276
Taue A300C - 40 K31		150"	.120"	MT546150120
		150"	.203"	MT-546-150
		150"	.276"	MT546150276
		174"	.120"	MT546174120
		174"	.203"	MT-546-174
		174"	.276"	MT546174276
		72"	.165"	MT54772
		84"	.165"	MT54784
		96"	.165"	MT54796
	3-1/2"	126"	.165"	MT-547-126
		150"	.165"	MT21601
		160"	.165"	MF130165
		174"	.165"	MT-547-174
		48"	.188"	MT-653
		63"	.237"	MT-653-63
	4.4.72."	96"	.188"	MT-654-96
	4-1/2"	126"	.188"	MT-539
		150"	.188"	MT-654-150
		174"	.237 "	MTC987205

NOTE: The length of pipe must be considered for the type of dish used and the loads from the dish and or the strut/stiff arm attached.

TOWER MOUNTS Application Guide



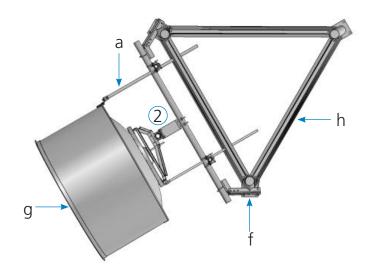
- a. Strut returns back to tower at recommended angle
- b. Tapered leg
- c. Channel supports adjust for inclination of tower leg
- d. True vertical antenna support
- e. Dual face support allows four point connection to

Note: Optional TF-ST allows greater work space and elliptical path

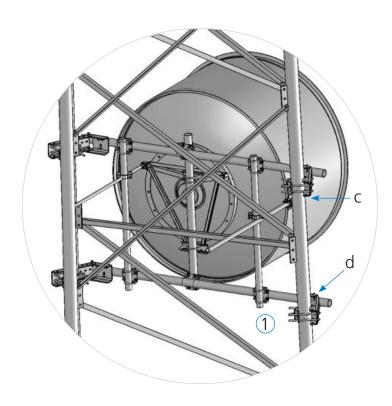
Key	Part Number	Description	Page #
1	TF-M3-14	Tower Face Mount With 14' (4.2 m) Face Pipes 3-1/2 "OD (88.9 mm)	13
2	TF-ST	Tower Face Mount Stand-off Bracket	17
3	TF-MSS-3	Tower Face Mount Strut Support Kit 2-3/8" OD x 3-1/2" OD (60.3 mm x 88.9 mm)	17

^{*} Shown with CommScope antennas and supports

f. 6" (152.4 mm) 60° Angle tower leg g. 8' (2.4 m) HSX8 series antenna and supports h. 10' (3.0 m) Tower face



TOWER MOUNTS Application Guide



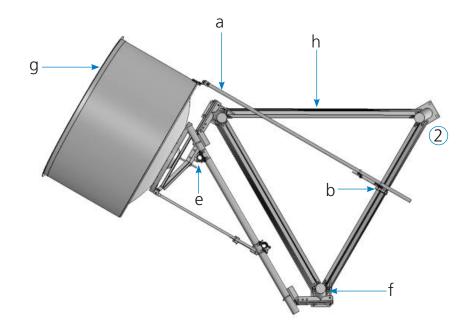
- a. Strut returns back to tower at recommended angle
- b. Optional strut attachment back to tower leg at recommended angle
- c. Strut attachment allows for vertical adjustment
- d. Universal saddle mounts up to up to 16" (406.4 mm) OD straight or tapered legs
- e. Mount can be positioned along horizontal support for azimuth adjustment

Key	Part Number	Description	Page #
1	TFL-M3S2-14	Tower Face Mount Kit With 14' (4.2 m) Face Pipes 3-1/2 "OD (88.9 mm) Kit Includes Two TF-MSS-3's	15
2	MD-CS-B	Microwave Dish Strut Support Bracket	10

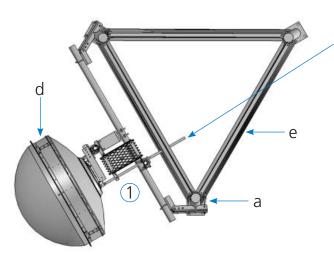
^{*} Shown with CommScope antennas and supports



h. 12' (3.6 m) Tower face

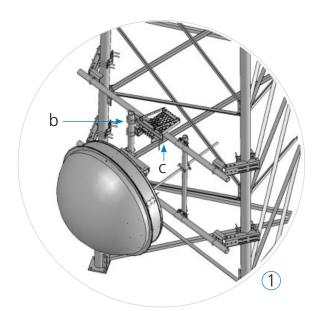






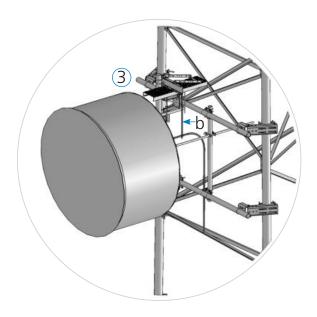
NOTE: A good practice, after the path is set, is to cut the excess strut/stiff arm 12" past the mount point, to prevent falling ice from hitting the strut and affecting the path. Treat cut edge per ASTM A123.

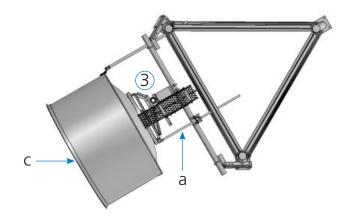
- a. 6" (152.4 mm) 60° Tapered tower leg b. Mounts to existing 4-1/2" OD (114.3 mm) vertical
- pipe mount c. Offers multiple attachment points on grating
- d. 3' (1.0 m) Dish
- e. 6' (1.8 m) Tower face



Key	Part Number	Description	Page #
1	MD-IS2	Microwave Dish Cable Ice Shield	23, 45
2	TF-M2S-8	Tower Face Mount Kit With 8' (2.4 m) Face Pipes 2-3/8" OD (60.3 mm) Kit Includes One TF-MSS-2	15
3	MD-IS4	Microwave Dish Cable Ice Shield	23, 45

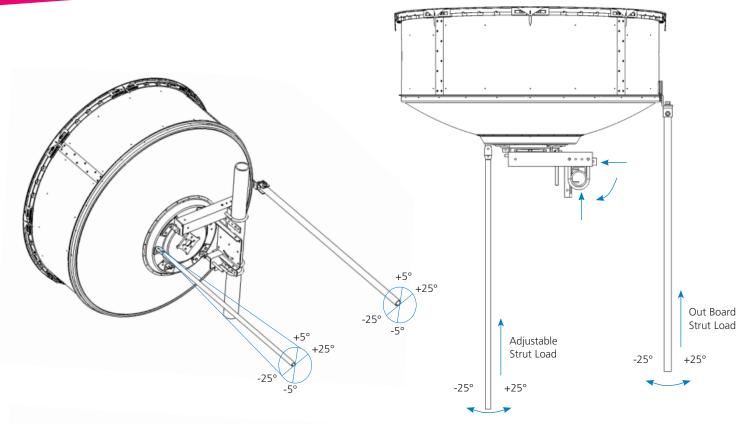
^{*} Shown with CommScope antennas and supports



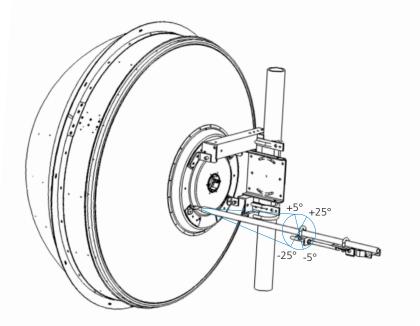


- a. Grating can be mounted at any azimuth to protect and follow elliptical waveguide
- b. Threaded support rod for elliptical waveguide
- c. 10' (3.0 m) HP series dish
- d. 6" (152.4 mm) 60° Tapered tower leg

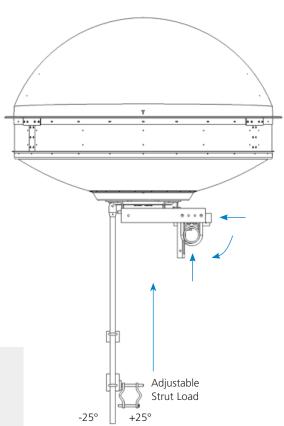
TOWER MOUNTS Application Guide



Typical Strut Positions



A 4' dish strut/stiff arm can see in survival winds up to 600 lbs. of load, and in working load wind conditions the mount cannot flex or deflect more than 0.1". A six foot dish strut/stiff arm can see in survival winds up to 1400 lbs of load, and in working load wind conditions the mount cannot flex or deflect more than 0.1". In addition this arm must have a horizontal angle of less than 25° and less than 5° in the vertical direction."

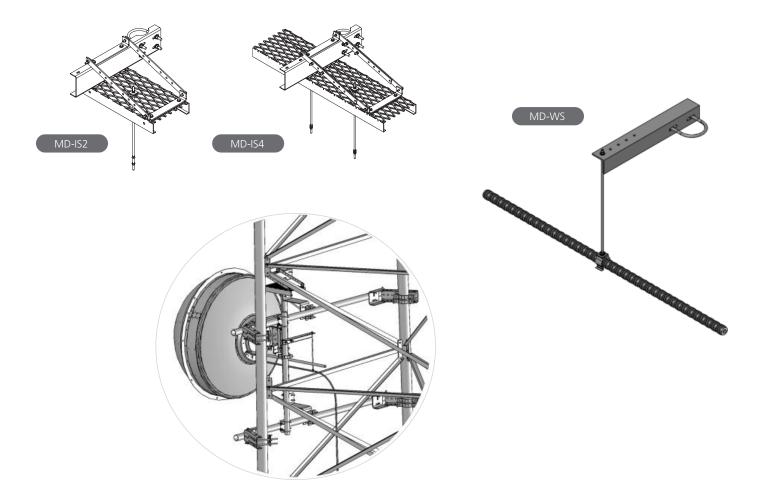


TOWER MOUNTS Waveguide Protection Solutions

Microwave Dish Waveguide Shields			
Application:	Waveguide protection for behind microwave antenna		
Size:	Three versions (see table)		
Design:	Support and protection for waveguide		
Feature:	Protects waveguide from falling debris		
Mounts to:	4-1/2" (114.3 mm) OD pipe		
Material:	Hot dip galvanized steel		
Includes:	lce shield and all attachment hardware		
Order Separately:	Pipe mount		

Microwave Dish Waveguide Shields			
Description	CommScope Material ID		
12" x 24" (304.8 mm x 610 mm) Shield	MD-IS2		
12" x 48" (304.8 mm x 1.2 m) Shield	MD-IS4		
24" (610 mm) Angle	MD-WS		

Waveguide shields are recommended to keep ice and other falling debris from damaging critical components behind the MW antenna.



NOTE: It is recommended that the EW line is supported every three feet in the horizontal and within 12" of the connector so there is no stress on the feed horn.

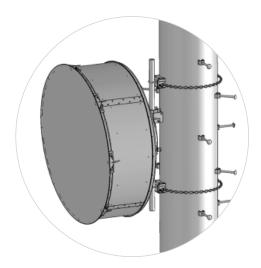


MONOPOLE MOUNTS

- Low-Profile Chain Mounts
- Light Duty Chain Mounts
- Heavy Duty Chain Mounts
- Microwave Components

MONOPOLE MOUNTS Low-profile Chain Mounts

Low-profile Chain Mounts		
Application:	Chain mount solution for mounting antennas or monopoles	
Size:	2-3/8" (60.3 mm) OD pipe mounts	
Design:	Single antenna chain mounts	
Feature:	Universal, low-profile mount	
Mounts to:	8" to 60" (203.2 mm to 1524 mm) OD	
Material:	Hot dip galvanized steel	
Includes:	See description	





Low-profile Chain Mounts				
Mounting	Chain	Pipes Included	Stand-off	CommScope Material ID
		None	N/A	<u>CM-30S-B</u>
		2-3/8" OD x 72" (60.3 mm OD x 1.8 m)		CM-30S-72
8" to 30" (203.2 mm to 711.2 mm) OD 25" to 94.2" (635	8' (2.4 m)	2-3/8" OD x 96" (60.3 mm OD x 2.4 m)		CM-30S-96
mm to 2393 mm)	Chain	None	14" (355.6 mm)	CML-30S-B
Circumference		2-3/8" OD x 72" (60.3 mm OD x 1.8 m)		CML-30S-72
		2-3/8" OD x 96" (60.3 mm OD x 2.4 m)		CML-30S-96
		None	N/A 14" (355.6 mm)	<u>CM-60S-B</u>
		2-3/8" OD x 72" (60.3 mm OD x 1.8 m)		CM-60S-72
75" to 188" (635	16' (4.9 m)	2-3/8" OD x 96" (60.3 mm OD x 2.4 m)		CM-60S-96
	Chain	None		CML-60S-B
		2-3/8" OD x 72" (60.3 mm OD x 1.8 m)		CML-60S-72
		2-3/8" OD x 96" (60.3 mm OD x 2.4 m)		CML-60S-96

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) 1/2" radial ice at 100' AGL per latest revision of ANSI/TIA/EIA-222

NOTE 1: Low Profile Chain Mounts can be used with microwave antennas 3' and smaller.

NOTE 2: To avoid future maintenance issues, excess chain should be removed after final installation.

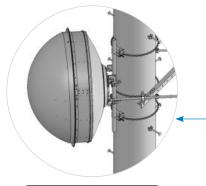
NOTE: Monopoles can sway due to wind loading. The amount of sway is dependent on the monopole design, antennas, and the wind speed. A typical 100 ft. monopole can sway 2-4 ft. during 90 mph wind conditions.

^{*} Typical installation of one 3' (1.0 m) microwave antenna per sector



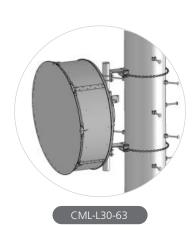
Light Duty Ch	ain Mounts
Application:	Chain mount solution for mounting antennas on monopoles
Size:	4-1/2" (114.3 mm) OD pipe mounts
Design:	Single antenna mount
Feature:	Single chain support
Mounts to:	8" to 60" (203.2 mm to 1.5 m) OD
Material:	Hot dip galvanized steel
Includes:	Pipe mounts and chains
Order Separately:	Strut/stiff arm and pipe mounts as needed

Light Duty Chain Mou	nts			
Mounting	Chain	Pipes Included	Stand-off	CommScope Material ID
	8" to 30" (203.2 mm to 711.2 mm) OD 25" to 94.2" (635 mm to 2393 mm) Circumference	None	N/A	<u>CM-L30-B</u>
to 711.2 mm) OD		4-1/2" OD x 63" (114.3 mm OD x 1.6 m) 90.64 (41.1) Pipe Mount		CM-L30-63
•		None		CML-L30-B
*		4-1/2" OD x 63" (114.3 mm OD x 1.6 m) 90.64 (41.1) Pipe Mount	14" (355.6 mm)	CML-L30-63
8" to 60" (203.2 mm to 1524 mm) OD 25" to 188" (635 mm to 4785 mm) Circumference		None	N/A	<u>CM-L60-B</u>
	16' (4.9 m) Chain	4-1/2" OD x 63" (114.3 mm OD x 1.6 m) 90.64 (41.1) Pipe Mount		CM-L60-63
		None		CML-L60-B
		4-1/2" OD x 63" (114.3 mm OD x 1.6 m) 90.64 (41.1) Pipe Mount	14" (355.6 mm)	CML-L60-63



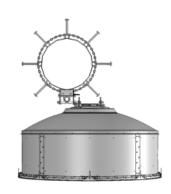
NOTE: Shown with 3' (1.0 m) microwave antenna

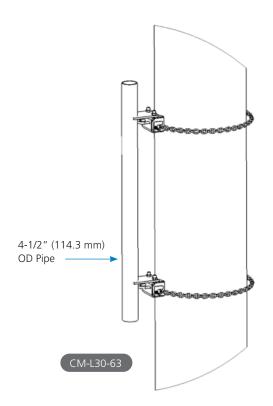
CM-L30-63 with CM-SL30





NOTE: Antenna should mount with load plane of dish as shown below





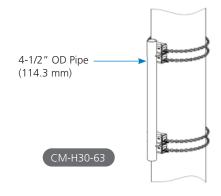


Heavy Duty Chain Mounts			
Application:	Chain mount solution for mounting antennas on monopoles		
Size:	4-1/2" (114.3 mm) OD pipe mounts		
Design:	Single antenna mount		
Feature:	Double chain support		
Mounts to:	8" to 60" (203.2 mm to 1.5 m) OD		
Material:	Hot dip galvanized steel		
Includes:	Pipe mounts and chains		
Order	Strut/stiff arm and pipe mounts		
Separately:	as needed		

			CommScope
Mounting	Chain	Pipes Included	Material ID
8" to 30" (203.2 mm to 711.2 mm) OD 25" to 94.2" (635 mm to 2393 mm) Circumference	8' (2.4 m) Chain	None	<u>CM-H30-B</u>
		4-1/2" OD x 63" (114.3 mm OD x 1.6 m) 90.64 (41.1) Pipe Mount	CM-H30-63
0" +- (0" /202 2 +- 1524) 00		None	<u>CM-H60-B</u>
8" to 60" (203.2 mm to 1524 mm) OD 25" to 188" (635 mm to 4785 mm) Circumference	16' (4.9 m) Chain	4-1/2" OD x 63" (114.3 mm OD x 1.6 m) 90.64 (41.1) Pipe Mount	<u>CM-H60-63</u>



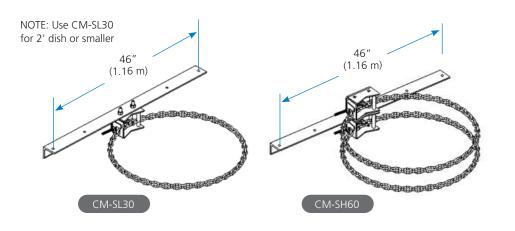
NOTE: Use Heavy Duty Chain Mounts for 3' (1 m) and larger microwave antennas



Monopole Strut/Stiff Arm Mounts		
Application:	Chainmount solution for attaching struts on monopoles	
Size:	48" (1.2 m) arm	
Design:	Chain mounted support arm	
Feature:	Adapts strut/stiff arm to monopole	
Mounts to:	8" to 60" (203.2 mm to 1.5 m) OD	
Material:	Hot dip galvanized steel	
Includes:	Arm and chains	
Order Separately:	Antenna chain mount and strut/ stiff arm	

NOTE: Supports up to 1,000 lbs. load at end, or 2,000 lbs. 10" from end

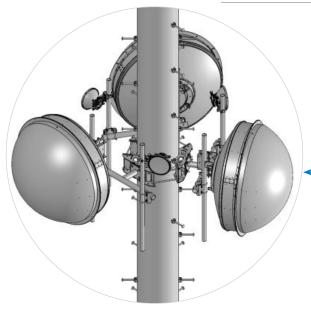
Monopole Stiff Arm/Strut Mounts			
Mounting	Chain	CommScope Material ID	
8" to 30" (203.2 mm to 711.2 mm) OD 25" to 94.2" (635 mm to 2393 mm) Circumference	Light Duty - Single 8' (2.4 m) Chain	CM-SL30	
	Heavy Duty - Double 8' (2.4 m) Chain	CM-SH30	
8" to 60" (203.2 mm to 1524 mm) OD 25" to 188" (635 mm to 4785 mm) Circumference	Light Duty - Single 16' (4.9 m) Chain	CM-SL60	
	Heavy Duty - Double 16' (4.9 m) Chain	CM-SH60	



MONOPOLE MOUNTS Microwave Components

Low-profile Adjustable Co-location Kit		
Application:	Co-location kit for monopoles	
Size:	57" (1.4 m) face with 48" (1.2 m) separation	
Design:	Universal double antenna mount	
Feature:	Down tilt capabilities	
Mounts to:	12" to 50" (304.8 mm to 1.27 m) OD monopoles	
Material:	Hot dip galvanized steel	
Includes:	Mount, weldment, hardware	
Order Separately:	Available with or without pipe	

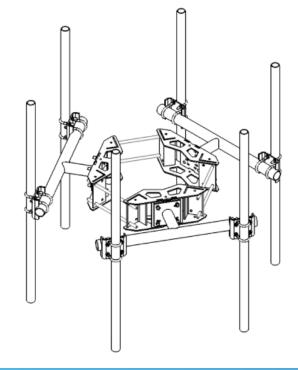
Low-profile Adjustable Co-Location Kit				
Mounting	Pipe Mount Size	Pipes Included	CommScope Material ID	
		None	MC-DPM2M-6-B	
	2-3/8" OD	(6) 2-3/8" OD x 72" (60.3 mm OD x 1.8 m)	MC-DPM2M-6-72	
	2-3/8 UD	(6) 2-3/8" OD x 96" (60.3 mm OD x 2.4 m)	MC-DPM2M-6-96	
	m to 1.27 m) OD 2-7/8" OD	(6) 2-3/8" OD x 126" (60.3 mm OD x 3.2 m)	MC-DPM2M-6-126	
		None	MC-DPM3M-6-B	
12" to 50" (304.8 mm to 1.27 m) OD Monopole		(6) 2-7/8" OD x 72" (73 mm OD x 1.8 m)	MC-DPM3M-6-72	
		(6) 2-7/8" OD x 96" (73 mm OD x 2.4 m)	MC-DPM3M-6-96	
		(6) 2-7/8" OD x 126" (73 mm OD x 3.2 m)	MC-DPM3M-6-126	
		None	MC-DPM35M-6-B	
		(6) 3-1/2" " OD x 72" (88.9 mm OD x 1.8 m)	MC-DPM35M-6-72	
		(6) 3-1/2"" OD x 96" (88.9 mm OD x 2.4 m)	MC-DPM35M-6-96	
		(6) 3-1/2" " OD x 126" (88.9 mm OD x 3.2 m)	MC-DPM35M-6-126	



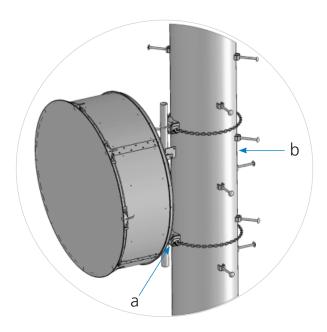
NOTE: Shown with 3' (1 m) microwave antenna

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) per latest rrevision of ANSI/TIA/EIA-222 140 mph 3-second gust, Exposure "D" per FBC, at 150' AGL



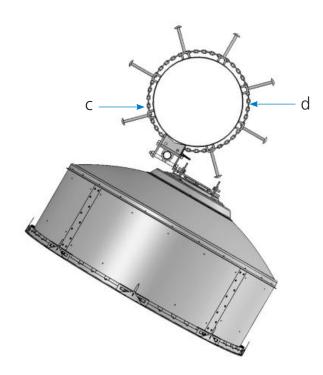
MONOPOLE MOUNTS Application Guide



Key	Part Number	Description	Page #
1	CM-30S-72	Low-profile Single Chain Mount Kit	25

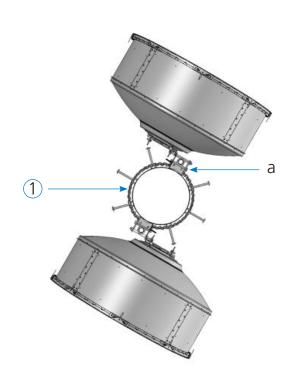
^{*} Shown with CommScope Antennas

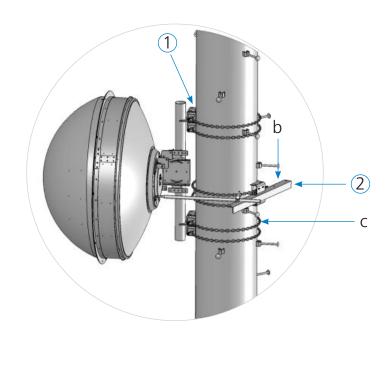
- a. Single point locking adjustment
- b. Mounts to both round and polygon poles
- c. Chain support offers 360° of azimuth adjustability
- d. Low-profile clearance allows for unobstructed climbing



NOTE: It is recommended that the EW line is supported every three feet in the horizontal and within 12" of the connector so there is no stress on the feed horn.

MONOPOLE MOUNTS Application Guide

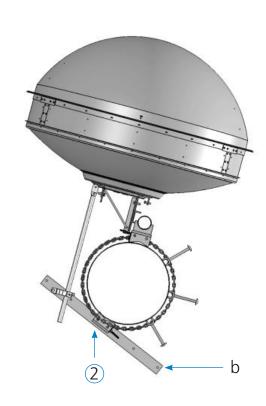




Key	Part Number	Description	Page #
1	CM-H30-63	Heavy Duty Chain Mount Kit	27
2	CM-SH30	Monopole Strut/Stiff Arm Mount Kit	27

^{*} Shown with CommScope Antennas

- a. Sliding brackets allow for double supports at desired azimuth b. Strut/stiff arm mount provides strut support at recommended angle c. Dual chain supports for larger antenna





ROOF-TOP MOUNTS

- Roof Frames
- Mounting Components
- Customs



Universal Trip	ood Mounts
Application:	Roof-top mounting for one antenna
Size:	2-7/8" (73 mm), 3-1/2" (88.9 mm), or 4-1/2" (114.3 mm) OD
Design:	Heavy duty tripod mount
Feature:	Interchangeable base unit
Material:	Hot dip galvanized steel
Includes:	Mount, with or without pipe
Order Separately:	Roof sled and pipe



Non-penetrating Roof Ballast Sled for	
Tripods	

Tripods	
Application:	Non-penetrating solution for TP-G series mounts
Size:	87" (2.2 m) faces
Design:	Converts tripods to anon- penetrating
Feature:	Three ballast trays
Material:	Hot dip galvanized steel
Includes:	Sled only
Order Separately:	Tripod and rubber mats

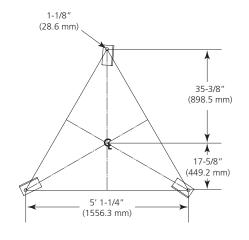
NOTE: Ballast to be calculated by competent person

Universal Tripod Mounts		
Description	CommScope Material ID	
	Base Only for 2-7/8" or 3-1/2" OD (73 mm or 88.9 mm OD), Pipe Ordered Separately	<u>TP-G300-B</u>
2-7/8" or 3-1/2" OD (73 mm or 88.9 mm OD)	2-7/8" OD x 96" (73 mm OD x 2.4 m)	TP-G300-96
	2-7/8" OD x 126" (73 mm OD x 3.2 m)	TP-G300-126
	3-1/2" OD x 96" (88.9 mm OD x 2.4 m)	<u>TP-G312-96</u>
	3-1/2" OD x 126" (88.9 mm OD x 3.2 m)	TP-G312-126
	Base Only for 4-1/2" OD (114.3 mm OD), Pipe Ordered Separately	<u>TP-G412-B</u>
4-1/2" OD (114.3 mm OD)	4-1/2" OD x 96" (114.3 mm OD x 2.4 m)	TP-G412-96
OD)	4-1/2" OD x 126" (114.3 mm OD x 3.2 m)	TP-G412-126
	4-1/2" OD x 150" (114.3 mm OD x 3.8 m)	TP-G412-150

Wind Rating*: 85 mph (BWS) per latest revision of ANSI/TIA/EIA-222

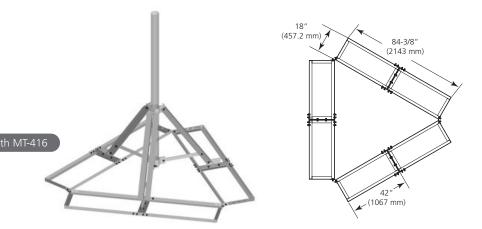
Exposure "C" per UBC, at 100' AGL

*Typical installation of one 6' standard microwave antenna using 4-1/2" pipe mast. See Engineering Data Table for ballast



Non-penetrating Roof Ballast Sled for Tripods

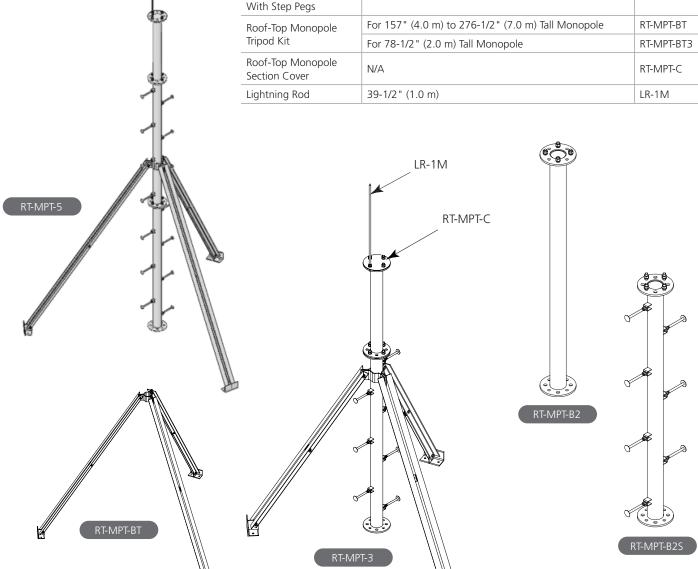
Description	CommScope Material ID
Non-penetrating Roof Sled, Tripod Mount Ordered Separately	<u>MT-416</u>
Rubber Mat, 1/2" x 18" x 48" (13 mm x 457 mm x 1219 mm), Six Mats Required for Ballast Tray	MT-F1637





Roof-top Monopole Tripods		
Application:	Single antenna mount for roof- tops	
Design:	Spliced center pole with angle kicker legs	
Feature:	Splice vertical post	
Mounts to:	Roof-top	
Material:	Hot dip galvanized steel	
Includes:	Center post, kicker angles, hardware	

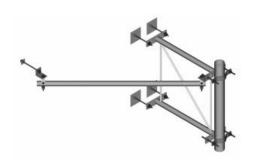
Universal Tripod Mounts		
Description	Height	CommScope Material ID
	3 Meter (9'-9") Mast	RT-MPT-3
	4 Meter (13'-1") Mast	RT-MPT-4
Roof-top Monopole Tripod Assembly	5 Meter (16'-5") Mast	RT-MPT-5
mpod Assembly	6 Meter (19'-8") Mast	RT-MPT-6
	7 Meter (22'-11") Mast	RT-MPT-7
Roof-top Monopole	39-1/2" (1.0 m)	RT-MPT-B1
Antenna Section No Step Pegs	78-1/2" (2.0 m)	RT-MPT-B2
Roof-top Monopole Antenna Section With Step Pegs	78-1/2" (2.0 m)	RT-MPT-B2S
Roof-Top Monopole	For 157" (4.0 m) to 276-1/2" (7.0 m) Tall Monopole	RT-MPT-BT
Tripod Kit	For 78-1/2" (2.0 m) Tall Monopole	RT-MPT-BT3
Roof-Top Monopole Section Cover	N/A	RT-MPT-C
Lightning Rod	39-1/2" (1.0 m)	LR-1M



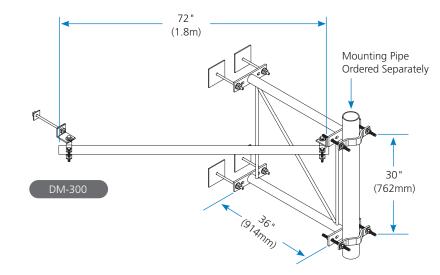
Mounting Components



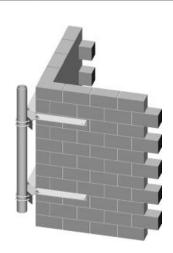
Stand-off Wall Mount		
Application:	3' Stand-off for wall mounting antennas	
Size:	36" (914.4 mm) stand-off	
Design:	Welded stand-off mount	
Feature:	Heavy duty for microwave antennas	
Mounts to:	Walls	
Material:	Hot dip galvanized steel	
Includes:	Bracket, strut/stiff-arm, and wall mount hardware	
Order Separately:	3-1/2" (88.9 mm) or 4-1/2" (114.3 mm) OD pipe	



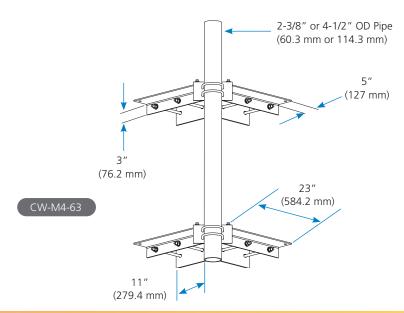
Description	Pipes Included	Stand-off	Stiff Arm/Strut	CommScope Material ID
Stand-off Wall Mount for Solid & Hollow Walls	None - Pipe Ordered Separately	36" (914 mm),	72" (1.8 m) Stiff Arm	<u>DM-300</u>



Corner Wall Mounts		
Application:	Antenna mounting for corners of buildings	
Design:	V-shaped corner mount	
Feature:	Adjustable clamp spacing	
Mounts to:	Wall corners	
Material:	Hot dip galvanized steel	
Includes:	Two brackets, pipe mount, and wall mount hardware	



Corner Wall Mount			
Description	Pipes Included	CommScope Material ID	
Corner Wall Mount	2-3/8" (60.3 mm) OD x 63" (1.6 m) Pipe	<u>CW-M2-63</u>	
	2-3/8" (60.3 mm) OD x 96" (2.4 m) Pipe	<u>CW-M2-96</u>	
	4-1/2" (114.3 mm) OD x 63" (1.6 m) Pipe	<u>CW-M4-63</u>	
	4-1/2" (114.3 mm) OD x 96" (2.4 m) Pipe	<u>CW-M4-96</u>	

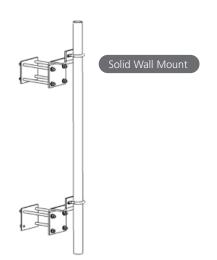


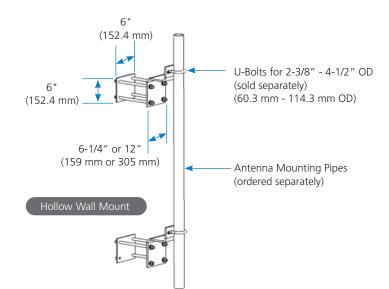
Mounting Components



Adjustable Wall Mounts	
Application:	Mounting antennas on hollow or solid walls
Size:	12" (304.8 mm) Square plate, 6-1/4" (158.75 mm) or 12" (304.8 mm) deep
Design:	Welded dual brackets
Feature:	Variable spacing flexibility
Mounts to:	Versions for hollow or solid walls
Material:	Hot dip galvanized steel
Includes:	Two wall brackets and backing plates or anchors
Order Separately:	U-bolts and 2-3/8" through 4-1/2" OD (60.3 mm through 114.3 mm) pipe

	CommScope
Description	Material ID
Adjustable Wall Mounts, 6" (152.4 mm) Stand-off	
For Hollow Walls, Includes Backing Plates, Kit of 2	MT-221
For Solid Walls, Includes Wall Anchors, Kit of 2	MT-222
Adjustable Wall Mounts, 12" (305 mm) Stand-off	
For Hollow Walls, Includes Backing Plates, Kit of 2	MT-221L
For Solid Walls, Includes Wall Anchors, Kit of 2	MT-222L
Optional Backing Plate	
Backing Plate Kit, 12" x 12" (305 mm x 305 mm)	MT-223
Roof-top Microwave Dish Ballast Mount System	
Three 4.5" OD X 8' Supports with 3.5" OD Strut Support Member	RF-MW8-B





ROOF-TOP MOUNTS Mounting Components



Microwave Mounting Components		
Description	CommScope Material ID	
Roof-top Microwave Dish Ballast Mount System		
Three 4.5" OD X 8' Supports with 3.5" OD Strut Support Member	RF-MW8-B	

Pipe Ordered Separately

36" (914.4mm)

Non-penetrating Roof-top Peak Frames		
Application:	Mounting of antennas on roof-top peaks	
Size:	36" (914.4 mm) Wide ballast trays	
Design:	Non-penetrating design	
Feature:	Accepts 2-3/8" to 4-1/2" OD (60.3 mm to 114.3 mm) antenna mounting pipes	
Mounts to:	Peaked roofs	
Material:	Hot dip galvanized steel	
Includes:	Ballast tray, tie down angles, mount, hardware	
Order Separately:	Antenna mounting pipes	

NOTE: Ballast to be calculated by competent person



Rooftop Peak Frame		
Description	Pipes Included	CommScope Material ID
Rooftop Peak Frame	None - Pipe Ordered Separately	RT-PM-B



CUBE Mount			
Description	Pipes Included	CommScope Material ID	
Roof Top Cube Mount Base Kit	None - Pipe Ordered Separately	RT-CUBE-MBASE	



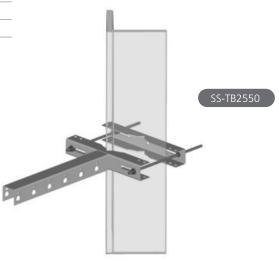
WAVEGUIDE

- Coaxial Support Components
- Waveguide Bridge Kits
- Cable Ladder Kits



Star Support Brackets	
Application:	Coaxial support on round or angle members
Size:	3/4" (19.1 mm) and 7/16" (11.1 mm) holes
Design:	Bolt together stand-off mount
Feature:	Six or twelve hole solution
Mounts to:	Round and angle members
Material:	Hot dip galvanized steel
Includes:	Bracket

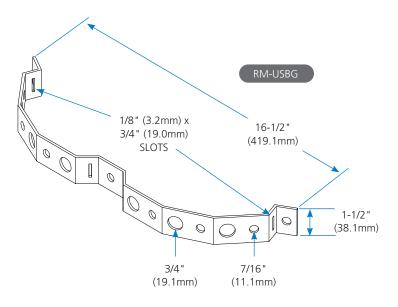
Star Support Tee Bracket		
Description	CommScope Material ID	
1-1/2" to 5-9/16" OD (38.1 mm to 141.3 mm OD) Round Members and 2-1/2" to 5" (50.8 mm to 127 mm) Angle Members	<u>SS-TB2550</u>	
4" to 10-3/4" OD (101.6 mm to 273.1 mm OD) Round Members and 4" to 8" (101.6 mm to 203.2 mm) Angle Members	<u>SS-TB6080</u>	



Universal Round Member Support Bracket	
Application:	Coaxial support for monopoles
Size:	3/4" (19.1 mm) and 7/16" (11.1 mm) holes
Design:	Coaxial cable support for round members
Feature:	Ideal for co-location
Mounts to:	Round members
Material:	Hot dip galvanized steel
Includes:	Bracket
Order Separately:	Banding



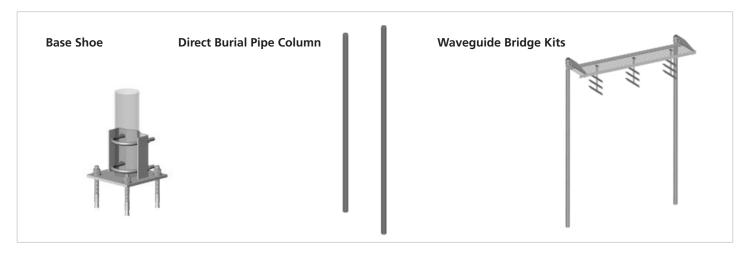
Universal Round Member Support Bracket		
Description	CommScope Material ID	
Universal Round Member Support Bracket for 6 Runs, Kit of 10	RM-USBG	



Waveguide Bridge Components



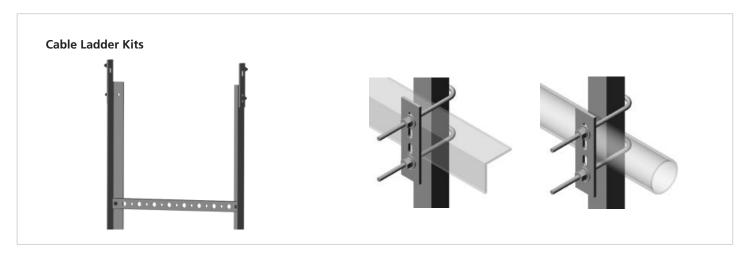
Ordering Information



Description	Part number	
Base Shoe		
For 3 1/2" OD Pipe, Hardware Included	WB-BS	
Direct Burial Pipe Column		
3 1/2" OD x 13' 4"	<u>MF-130</u>	
Waveguide Bridge Support Brackets		
24" Wide for 3 1/2" OD Legs	WB-LB24-3	
Safety Grated Waveguide Bridge Kits		
24" x 10' Bridge with (2) 15' 4" Direct Burial Posts	WB-K210-B15	
24" x 10' Bridge with (2) 13' 4" Direct Burial Posts	<u>WB-K210-B</u>	
24" x 10' Bridge with (4) 13' 4" Direct Burial Posts	<u>WB-K410-B</u>	
24" x 10' Bridge with (2) 10' 6" Base Shoe Posts	<u>WB-K210-S</u>	
Heavy Duty 12" x 10' Bridge with (2) 13' 4" Direct Burial Posts	<u>WB-K110-B-HD</u>	
Heavy Duty 12" x 10' Bridge with (2) 10' 6" Base Shoe Posts	WB-K110-S-HD	



Ordering Information



Description	Part number
Cable Ladder Kits	
20" Wide, Six Hole Rung, 10 feet	<u>CL-0610-U</u>
20" Wide, Six Hole Rung, 20 feet	<u>CL-0620-U</u>
30" Wide, Nine Hole Rung, 10 feet	<u>CL-0910-U</u>
30" Wide, Nine Hole Rung, 20 feet	CL-0920-U
38" Wide, Twelve Hole Rung, 10 feet	<u>CL-1210-U</u>
38" Wide, Twelve Hole Rung, 20 feet	CL-1220-U



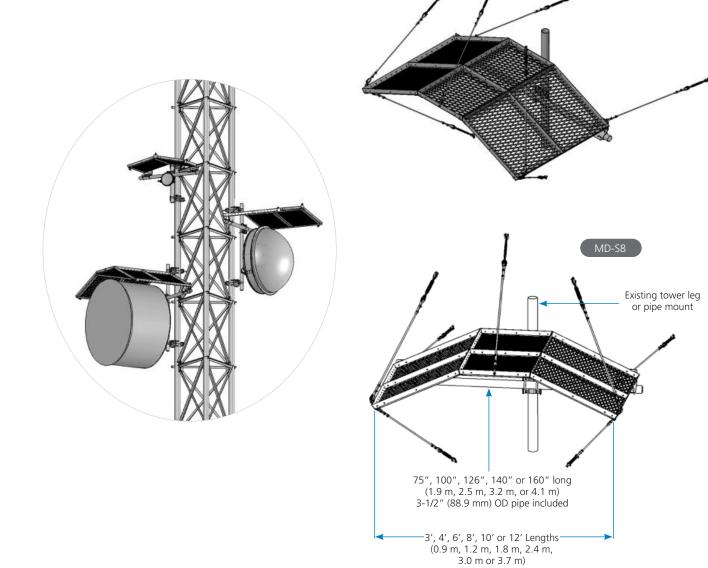
SITE RELATED

- Microwave Ice Shields
- Microwave Shield Mounts
- Components
- Equipment Platforms
- Ice and Rain Canopies
- Handrail and Step Kits

SITE RELATED COMPONENTS Microwave Ice Shields

Microwave Antenna Ice Shield	
Application:	Protection microwave antenna from falling debris
Design:	Heavy duty
Feature:	Bolt together, light weight panels
Mounts to:	4-1/2" (114.3 mm) OD pipe
Material:	Hot dip galvanized steel
Includes:	Ice shield and all attachment hardware
Order Separately:	Pipe mount

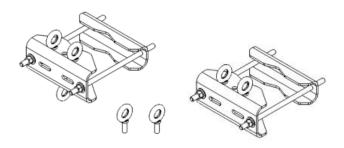
Microwave Antenna Ice Shield		
Description	Antenna Size	CommScope Material ID
	3' (914.4 mm) Antenna	MD-S3
	4' (1.21 m) Antenna	<u>MD-S4</u>
Microwave Antenna Ice Shield for mounting to	6' (1.8 m) Antenna	MD-S6
-1/2 " OD Pipe	8' (2.4 m) Antenna	MD-S8
	10' (3 m) Antenna	MD-S10
	12' (3.6 m) Antenna	MD-S12

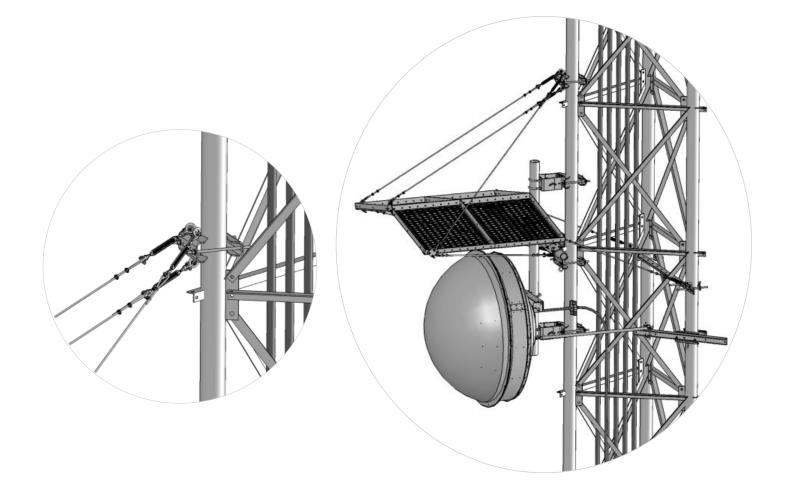


SITE RELATED COMPONENTS Microwave Shield Mounts

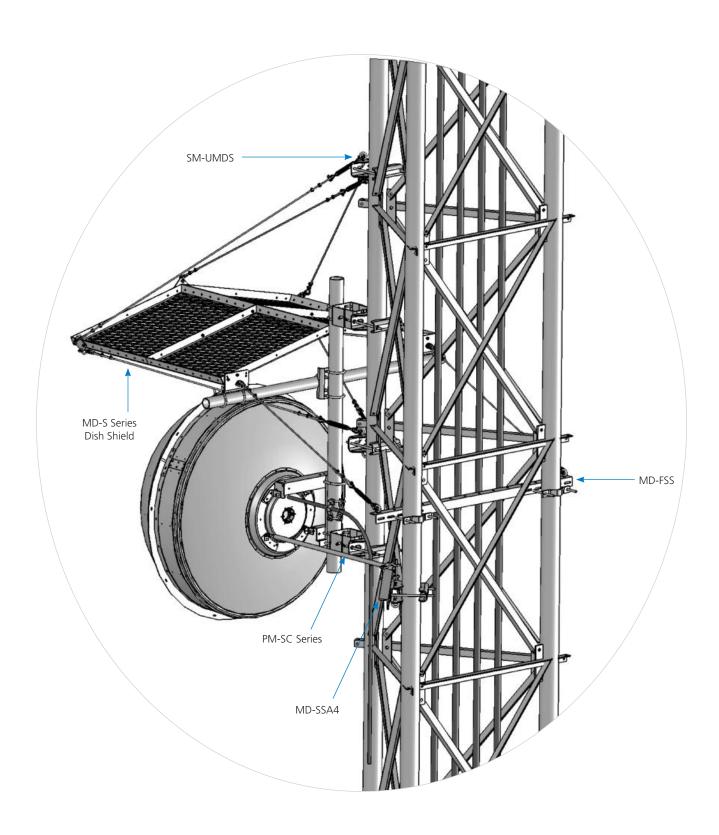
Microwave Shield Mounts	
Application:	Lattice towers
Design:	Saddle mount and eye bolts
Feature:	Two piece formed saddles
Mounts to:	Straight or tapered legs up to 8-5/8" OD (219.1 mm OD), 8" (203.2 mm) angle 60°, or 6" (152.4 mm) angle 90°
Material:	Hot dip galvanized steelf
Includes:	Universal saddle mount, eye bolts
Order Separately:	Microwave dish shield

Microwave Shield Mounts		
Description	CommScope Material ID	
Universal Saddle Mount for Attaching MD-S Guy Wire Supports. Includes Seven Eye Bolts	SM-UMDS	
5/8" x 1-3/4" Shouldered Eye Bolt	GB-05SB	





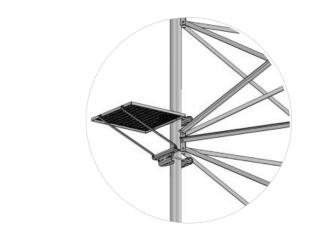
SITE RELATED COMPONENTS Microwave Shield Mounts



SITE RELATED COMPONENTS Microwave Ice Shields

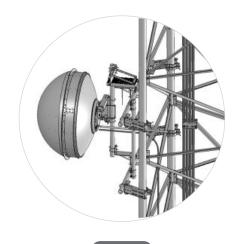
Square Antenna Ice Shields	
Application:	Protection from falling debris
Design:	Heavy duty
Feature:	Protects antenna from falling ice
Mounts to:	4-1/2" (114.3 mm) OD pipe
Material:	Hot dip galvanized steel
Includes:	Ice shield, mounting hardware
Order Separately:	4-1/2" (114.3 mm) OD pipe mount

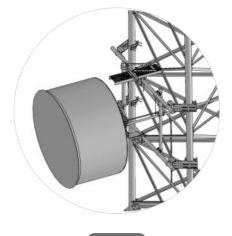
Square Antenna Ice Shields		
Description	Shield Size	CommScope Material ID
	2' (609.5 mm) Square	MD-SQ2
Square Antenna Ice Shield for mounting to 4-1/2 " OD Pipe	3' (914.4 mm) Square	MD-SQ3
- Pr	4' (1.21 m) Square	MD-SQ4



Microwave Dish Waveguide Shields		
Application:	Waveguide protection from falling debris	
Size:	Three versions (see table)	
Design:	Support and protection for waveguide	
Feature:	Protects waveguide from falling debris	
Mounts to:	4-1/2" (114.3 mm) OD pipe	
Material:	Hot dip galvanized steel	
Includes:	Ice shield and all attachment hardware	
Order Separately:	Pipe mount	

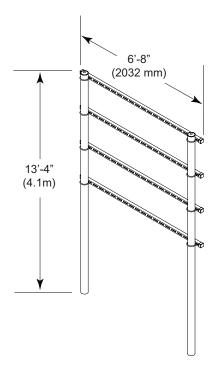
Square Antenna Ice Shields				
Description	Shield Size	CommScope Material ID		
Manager Charles Children and Charles	12" x 24" (304.8 mm x 610 mm) Shield	MD-IS2		
Waveguide Ice Shield for mounting to 4-1/2" OD Pipe	12" x 48" (304.8 mm x 1.2 m) Shield	MD-IS4		
	24" (610 mm) Angle	MD-WS		





SITE RELATED COMPONENTS Components

Power Telco Racks		
Application:	Rack for mounting telco racks	
Design:	Two posts, unistrut	
Feature:	Burial posts or Base Shoes	
Material:	Hot dip galvanized steel	
Includes:	Posts, horizontal struts, mounting hardware	



Power Telco Racks/H-Frames			
Description	Number of Rungs	CommScope Material ID	
	Two 80" (2 m) Rungs	PT-R102	
With 13'-4" (4.1 m) Burial Posts	Three 80" (2 m) Rungs	<u>PT-R103</u>	
	Four 80" (2 m) Rungs	PT-R104	
10' x 10' with Base Shoes	Twelve 10' (3 m) Rungs	MTC3742	
x 6' with Base Shoes		MTC4045HF65	
5' x 6 'with Base Shoes	Five 5' (1.5 m) Rungs	MTC4045HF55	
5' x 6' with Base Shoes	Fight F! (1 F m) Rungs	PT-S-0605-08	
5' x 5' with Base Shoes	Eight 5' (1.5 m) Rungs	PT-S-0505-08	
5' x 7' with Base Shoes & 5' of WGB	Civ.El.(1.E.m) Dungs	RR-HFBS5	
5' x 10' with Base Shoes & 5' of WGB	Six 5' (1.5 m) Rungs	RR-HFBP5	



SITE RELATED COMPONENTS **Equipment Platforms**

CommScope equipment platforms are delivered unassembled and erected on-site. They are designed to assemble quickly, easily and without the need for a cement pad. No permitting, no need for cement forms or rebar. No wasted time spent waiting for the pad to cure. Should cabling beneath the platform need to be moved, there is no need to dig up the pad and re-pour—simply re-route as needed.

The base equipment platform features grating, platform and all the hardware needed. A variety of options enable you to tailor the platform size, footings, canopy type and more to the requirements of the job. Additional add-ons—like power telco racks, handrails, steps and climbing ladders—let you create a flexible platform solution that can adapt to the specific needs of each site as the network and site requirements evolve.

To order, specify your desired length and width (in 2-ft increments), then select footing type per charts below:



Step 1

Platform Width (2-ft. increments, 26 ft. max)		
1	04	4 ft. (Minimum width)
1	26	26 ft. (Maximum width)

Step 2

Platform Length (2-ft. increments, 26 ft. max)		
2	04	4 ft. (Minimum width)
2	26	26 ft. (Maximum width)

Step 3

Platform Support/Feet Option		
	В	No feet, base platform only
3	AL	Adjustable legs with side leg jack
	DF	Weight disbursement feet

^{*}Steps ordered separately to match elevation



COMMSCOPE®

SITE RELATED COMPONENTS Ice and Rain Components

Specifying the right ice or rain canopy is even easier. Use the format below to tell us the length and width you need and the type of footing you prefer.



Step 1

	Canopy Type		
	1	IC	Ice Canopy
		RC	Rain Canopy

Step 2

Canopy Length		
	06	6 ft.
2	08	8 ft.
	10	10 ft.



Canopy Width		
	10	10 ft.
3	12	12 ft.
	15	15 ft.

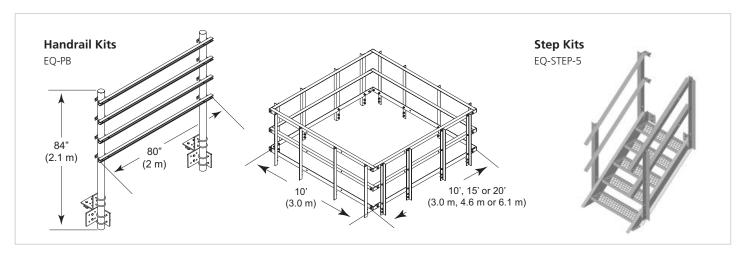
Step 4

Canopy Footing		
4	В	Direct burial posts, 13 ft. 4 in. tall
4	S	Base shoe pipes 10.5 ft. tall



SITE RELATED COMPONENTS Handrail and Step Kits

Ordering Information



Description	Part number
Handrail Kit for EQ-P Series Platforms	
For 10' x 10' (3 m x 3 m) Platform	EQ-HR1010
For 10' x 15' (3 m x 4.6 m) Platform	EQ-HR1015
For 10' x 20' (3 m x 6.1 m) Platform	EQ-HR1020
Ladder for EQ-P Series Platforms	
Climbing Ladder for EQ-P Series Platforms	<u>EQ-LD</u>
Step Kits for EQ-P Series Platforms	
Single Platform Step for EQ-P Series Platforms	<u>EQ-STS</u>
Double Step Kit for EQ-P Series Platforms	EQ-STEP-2
Triple Step Kit for EQ-P Series Platforms	EQ-STEP-3
Four Step Kit for EQ-P Series Platforms	EQ-STEP-4
Five Step Kit for EQ-P Series Platforms	EQ-STEP-5
Six Step Kit for EQ-P Series Platforms	EQ-STEP-6
Power Telco Rack Kit for EQ-P Series Platforms	
40" x 84" Round Post H-Frame with 4 Rungs, Mounts to EQ-P Platforms	EQ-PPC
Post Bracket Kit for Waveguide Bridge Attachment to EQ-P Series Platforms	
Mounts 3-1/2" (88.9 mm) OD Pipe	EQ-PB
8' x 8' H-Frame with Square Posts & 4 Rungs, mounts to EQ-P Platforms	MTC3983



Pipe Dimensions

Pipe Size	OD (Inches)	OD (mm)
1/2"	0.84	21.34
3/4"	1.05	26.67
1"	1.32	33.40
1-1/4"	1.66	42.16
1-1/2"	1.90	48.26
2"	2.38	60.33
2-1/2"	2.88	73.03
3"	3.50	88.90
3-1/2"	4.00	101.60
4"	4.50	114.30
5"	5.56	141.30
6"	6.63	168.30
8"	8.63	219.08



Steel Thicknesses

Gage	Thickness (Inches)	Thickness (mm)
10	0.1345	3.416
11	0.1196	3.038
12	0.1046	2.657
13	0.0897	2.278
14	0.0747	1.897
15	0.0673	1.709
16	0.0598	1.519



AWG Wire Sizes

AWG Size	Stranded Inch	d, OD (overall) Millimeter	Soli Inch	id, OD Millimeter
4/0	0.528	13.41	0.460	11.68
2/0	0.419	10.64	0.409	10.39
1/0	0.373	9.47	0.324	8.23
2	0.292	7.42	0.257	6.53
4	0.232	5.88	0.204	5.18
6	0.184	4.66	0.162	4.11
8	0.146	3.70	0.128	3.25
10	0.116	2.94	0.102	2.59



Fraction/Decimal/Metric Chart

Inches Fraction	Inches Decimal	Millimeters
1/16	0.0625	1.6
1/8	0.1250	3.2
3/16	0.1875	4.8
1/4	0.2500	6.4
5/16	0.3125	7.9
3/8	0.3750	9.5
7/16	0.4375	11.1
1/2	0.5000	12.7
9/16	0.5625	14.3
5/8	0.6250	15.9
11/16	0.6875	17.5
3/4	0.7500	19.1
13/16	0.8125	20.6
7/8	0.8750	22.2
15/16	0.9375	23.8
1	1.0000	25.4

NOTE: Not applicable to coaxial cables



Conversion Factors

Convert From	Convert To	Multiply By
Length		
foot (ft)	meter (m)	0.3048
inch (in)	meter (m)	0.0254
inch (in)	centimeter (cm)	2.5400
meter (m)	foot (ft)	3.2808
meter (m)	inch (in)	39.3700
centimeter (cm)	inch (in)	0.3937
millimeter (mm)	inch (in)	0.0393
Area		
square foot (ft²)	square meter (m²)	0.0929
square meter (m²)	square foot (ft²)	10.7639
Circle		
radius	diameter	2.0000
diameter	radius	0.5000
diameter	circumference	3.1416
radius	circumference	6.2832
Weight		
pound (lb)	kilogram (kg)	0.4536
kilogram (kg)	pound (lb)	2.2046

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