Product Datasheet

Times-7 Portal

Times-7 a high-tech company specialising in the design and manufacture of fixed RAIN RFID antennas.

Our journey began in 2006, when Times-7 was founded. Since then, we have developed the largest portfolio of fixed RAIN RFID reader antennas, which are known for their SlimLine™ design, quality and performance.

Our antennas cover:

- A wide variety of RF characteristics
- A range of sizes
- Leading temperature performance
- Range of IP ratings

If your deployment requires a specialisation that is not met by our standard portfolio, we can design and manufacture customised antennas to meet your needs.

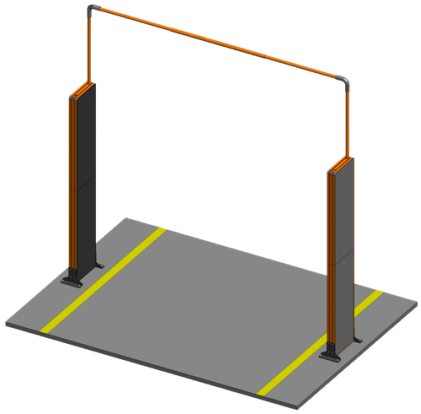
We are based in Lower Hutt, New Zealand, with a global reach as we export our products through our extensive authorised partner network.

In addition to our world-class RAIN RFID antennas, customers appreciate Times-7's customer service and in-depth technical support.

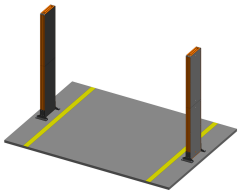
We are responsive in supporting a large global customer base and ensuring the success of our customer's RFID implementations.

Patent information:
www.times-7.com/patents

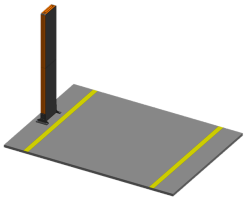
Times-7 Research Ltd
10 Te Puni Street
Lower Hutt 5012
New Zealand



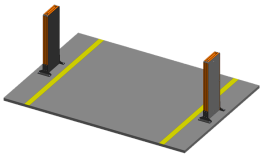
Portal System Combo



Portal System



Portal Tower



Portal Mini Towers

The Times-7 Portal is a RFID portal platform engineered for high-accuracy pallet, carton and item-level tracking. Its high-gain, circularly polarised antenna delivers a focused 50° horizontal beam, fully energising the target pallet while maintaining exceptional read-zone control to eliminate cross-reads from adjacent lanes.

Available in four configurations **(Portal System Combo, Portal System, Portal Tower and Portal Mini Towers**), the Portal adapts to many pallet height, portal width or product mix, supporting easy field adjustments and on-site repairs.

Rated to IP54 for permanent dock door installations and compatible with any standard RAIN RFID reader, the Times-7 Portal delivers precision, reliability and scalable deployment for distribution centres and multi-lane warehouse environments.

ORDERING INFORMATION

Note:
Please quote product name, frequency range, part number, and accessories.
See page 3 for further details.

Product Name	Frequency Range	Part Number
Portal System Combo (Portal System + Cable Bridge)	FCC 902-928 MHz	75772
	ETSI 865-868 MHz	75771
Portal System	FCC 902-928 MHz	75625
	ETSI 865-868 MHz	75624
Portal Tower	FCC 902-928 MHz	75711
	ETSI 865-868 MHz	75710
Portal Mini Towers	FCC 902-928 MHz	75709
	ETSI 865-868 MHz	75708

Accessories	Part number
Cable Bridge	75691

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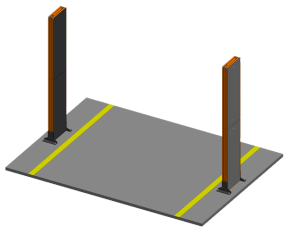
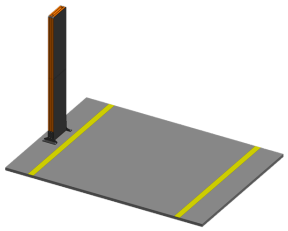
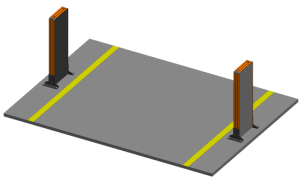
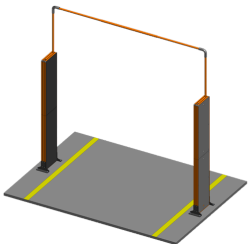
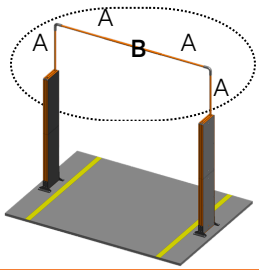
Product Datasheet

Times-7 Portal

ORDERING INFORMATION

CONFIGURATION		PART NUMBER	WHAT'S INCLUDED
PORTAL SYSTEM			
Portal System (FCC)		75625	2 x upper antenna units 2 x lower antenna units 4 x patch cables (upper to lower unit connection) 4 x foot plates 1 x universal reader mount 4 x side plates
Portal System (ETSI)		75624	
PORTAL TOWER			
Portal Tower (FCC)		75711	1 x upper antenna unit 1 x lower antenna unit 2 x patch cables (upper to lower unit connection) 2 x foot plates 1 x universal reader mount 2 x side plates
Portal Tower (ETSI)		75710	
PORTAL MINI TOWERS			
Portal Base (FCC)		75709	2 x lower antenna units 4 x foot plates 1 x universal reader mount
Portal Base (ETSI)		75708	
PORTAL SYSTEM COMBO (*Includes all Cable Bridge components listed below)			
Portal System Combo (FCC)		75772	2 x upper antenna units 2 x lower antenna units 4 x patch cables (upper to lower unit connection) 4 x foot plates 1 x universal reader mount 4 x side plates
Portal System Combo (ETSI)		75771	
ACCESSORIES			
*Cable Bridge (Portal System Accessory) (Designed for dock door widths of 2.4 - 3.2m)		75691	2 x corner blocks 2 x clamps 4 x 1130mm pultrusion pole (35mm dia.) *A on diagram 1 x 1130mm pultrusion pole (41mm dia.) *B on diagram

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Product Datasheet

Times-7 Portal

SHIPMENT SPECIFICATIONS

Times-7 Portal	Combo	System	Tower:	Mini Towers:
Boxed Unit Dimensions: (L x W x D)	1150 x 470 x 140 mm (x 2 boxes) Cable bridge (x 1 box) 1150 x 140 x 140 mm	1150 x 470 x 140 mm (x 2 boxes)	1150 x 470 x 140 mm (x 1 box)	
Net Weight	40.6 kg / 89.6 lbs.	36.7 kg / 81 lbs.	18.6 kg / 41.1 lbs.	19.4 kg / 42.7 lbs.
Gross Weight	44.6 kg / 98.4 lbs.	40.3 kg / 88.8 lbs.	20.4 kg / 45 lbs.	21.2 kg / 46.7 lbs.

PHYSICAL / ENVIRONMENTAL SPECIFICATIONS

	Portal Unit	Portal Tower:
Dimensions: (L x W x D) (Excluding accessories)	1104 x 397 x 97 mm 23.62 x 11.81 x 0.31"	2207 x 397 x 97 mm 23.93 x 12.12 x 0.38"
Weight	9 kg / 19.84 lbs.	17.8kg / 39.24 lbs.
Materials	ABS front & rear cover / fibre-glass pultrusion (frame)/ aluminium: foot, side plate and universal reader mount	
Environmental Rating	IP54	
Operating and Storage Temperature	Operating: -20°C to +55°C / -4° to +131°F Storage: -30°C to +60°C / -22° to +140°F	
Mounting	Refer to website for Assembly and Installation Guide	
Connector Type	RP-TNC (2 x reader connections per unit or tower)	
RoHS & REACH Compliant	Yes	

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Product Datasheet

Times-7 Portal

ELECTRICAL SPECIFICATIONS

	Portal Tower:	Portal Unit:
Frequency Range	865-868 MHz (ETSI) / 902-928 MHz (FCC)	
Polarisation	Right hand circularly polarized (RHCP) Note: Left hand circularly polarised available on request	
Far-Field Gain	10dBiC ± 0.5dB (7dBi equivalent) typical	
Far-Field 3dB Beamwidth (max)	50° horizontal (see vertical radiating pattern)	50° both planes
VSWR	1.5 typical	
Front-To-Back Ratio	-20 dB typical, -16.5 dB Max	
Axial Ratio	2 dB typical, 2.5 dB Max	
Nominal Impedance	50 Ω	
Anti-Static Protection	Yes, DC grounded	
Antenna Detection	10 KΩ resistance	
Maximum Input Power	3 W	

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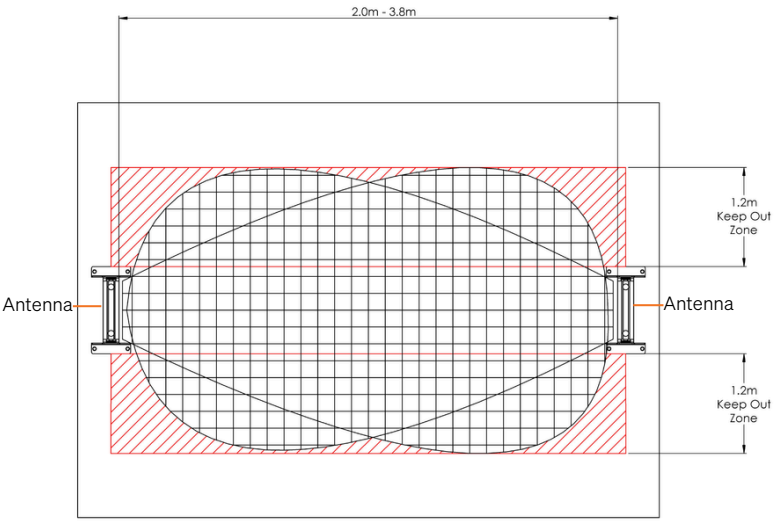
Product Datasheet

Times-7 Portal

READ-ZONE COVERAGE

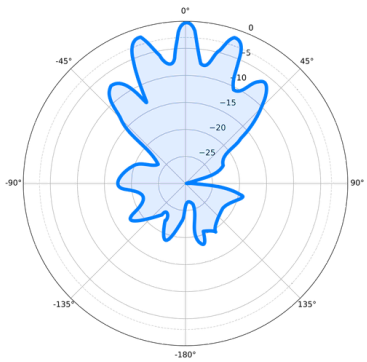


Narrow 50° horizontal beamwidth confines the read-zone and reduces the portal “keep out” area.

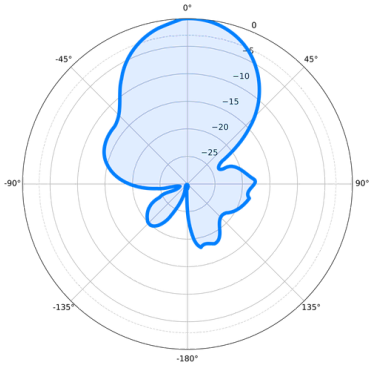
Evenly distributed vertical radiation pattern provides total and consistent height coverage without dead zones or missed reads.

RADIATING PATTERNS

Portal Tower

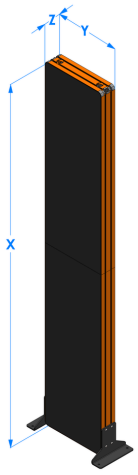


Vertical Plane

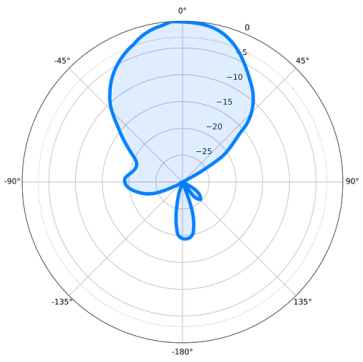


Horizontal Plane

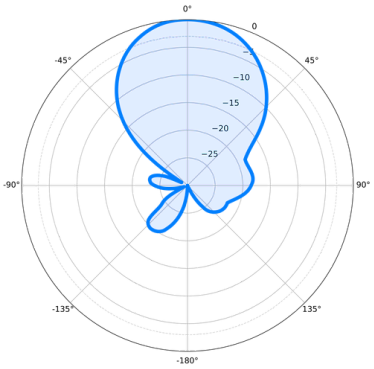
AZIMUTH PLANES



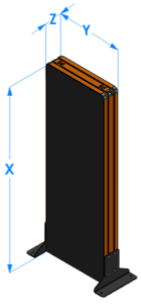
Portal Unit (Lower)



Vertical Plane



Horizontal Plane



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Product Datasheet

Times-7 Portal

APPLICATIONS

Warehouse Receiving and Dispatch



Positioned at **dock doors**, the Portal captures every tagged pallet, carton and item as goods move in and out. Its focused 50° beam reads only the target lane, minimising phantom inventory events caused by cross-reads, while the IP54 rating supports permanent installation in busy dock environments.

Distribution Centre Operations



The Portal's configurations adapt to the varied pallet heights and product types found in high-volume distribution centres, from RF-friendly apparel to challenging liquids and metals. Validated 100% carton-level reads keep goods flowing without slowing operations.

Third-Party Logistics (3PL) Facilities



For cross-docking operations handling mixed clients and product types, the Portal's reader-agnostic design integrates with any standard RAIN RFID infrastructure. Configurations can be tailored per lane or per client, delivering accurate, auditable reads across diverse freight profiles.

Liquor and Beverage Distribution



Liquid-filled glass and metal cans are among the hardest products for UHF RFID. The Portal was validated specifically against both, with the Portal Unit configuration achieving 100% carton-level reads on both item types, making it well-suited to beverage pallets.

Retail Back-of-House Receiving



The Portal verifies inbound stock at carton and item level as it arrives, improving inventory accuracy from the moment goods enter the storeroom. Its compact footprint and simple assembly suit space-constrained back-of-house areas.

Grocery and Cold Chain Distribution



With an operating range of -20°C to +55°C and IP54 protection, the Portal performs reliably in chilled docks and demanding grocery environments, keeping fast-moving, time-sensitive goods tracked accurately through receiving and despatch.

For more antenna recommendations by applications, **visit https://www.times-7.com/applications**

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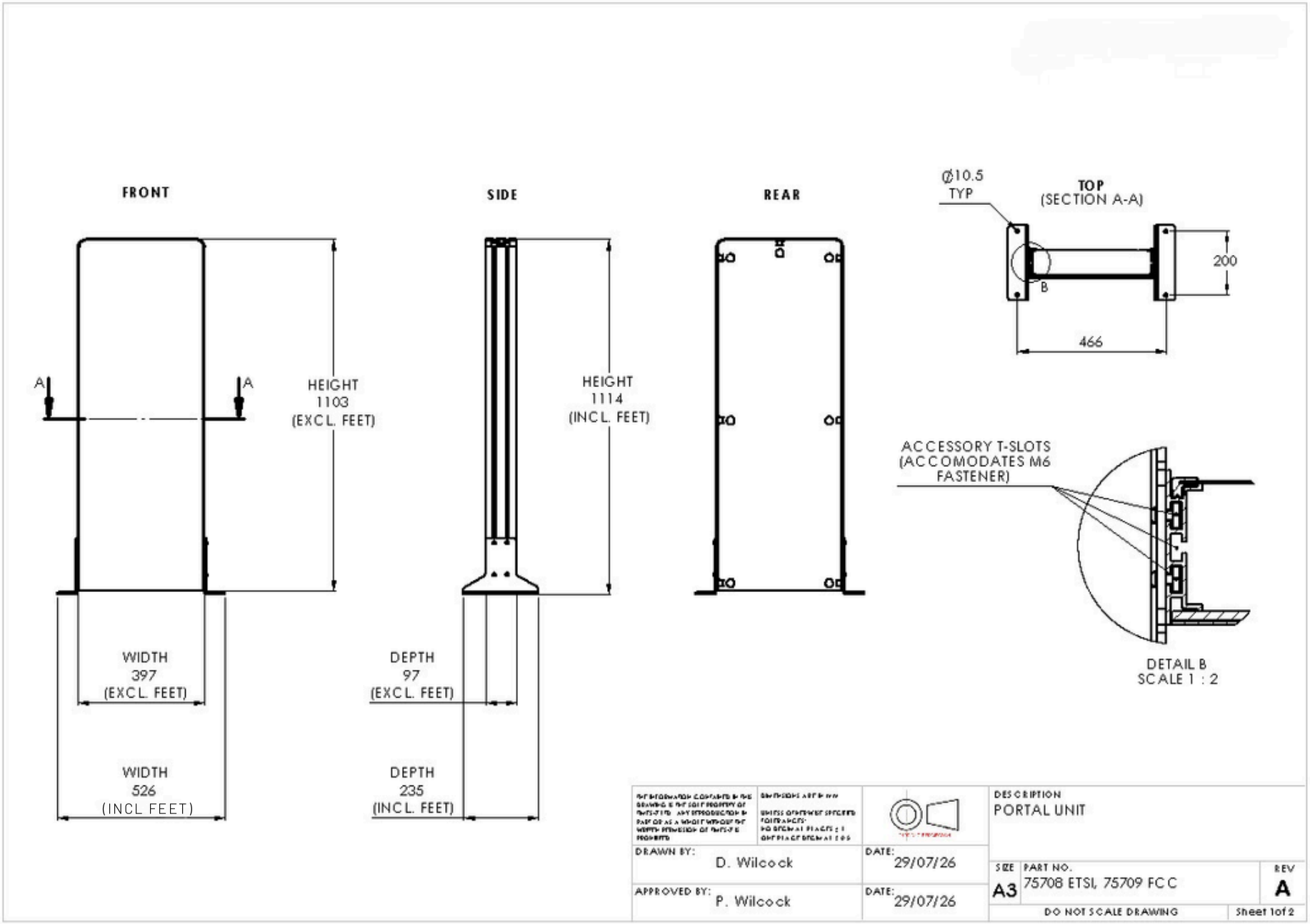
MECHANICAL DRAWING FOR TIMES-7 PORTAL UNIT



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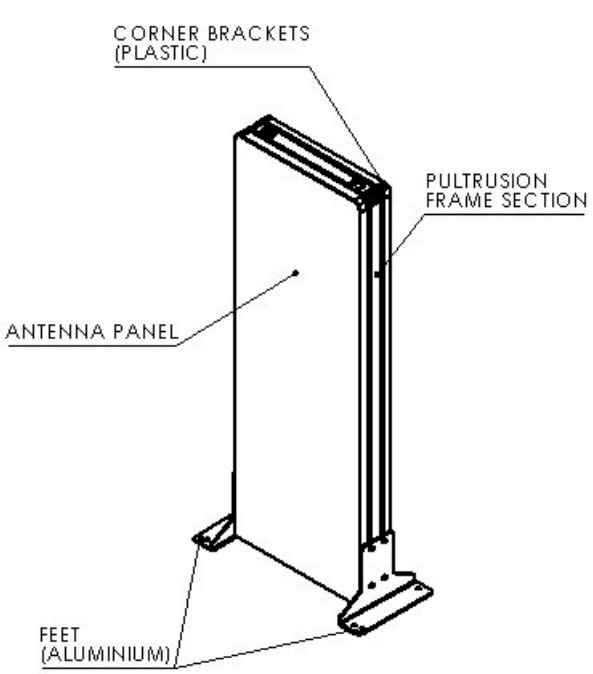
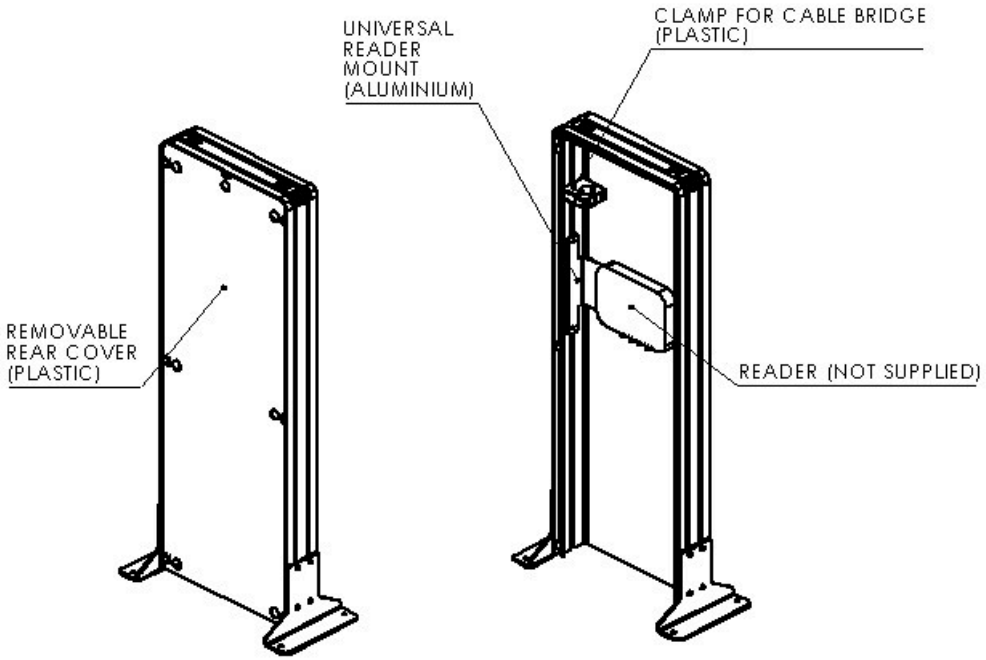
MECHANICAL DRAWING FOR TIMES-7 PORTAL UNIT



FRONT



REAR

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TIMES-7 LTD. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TIMES-7 IS PROHIBITED	DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED FOR TRADES: NO DECIMAL PLACES ± 1 ONE PLACE DECIMAL ± 0.5		DESCRIPTION: PORTAL UNIT
DRAWN BY: D. Wilcock		DATE: 29/07/26	SIZE: A3 · PART NO.: 75708 ETSI, 75709 FCC · REV: A
APPROVED BY: P. Wilcock		DATE: 29/07/26	DO NOT SCALE DRAWING · Sheet 2 of 2

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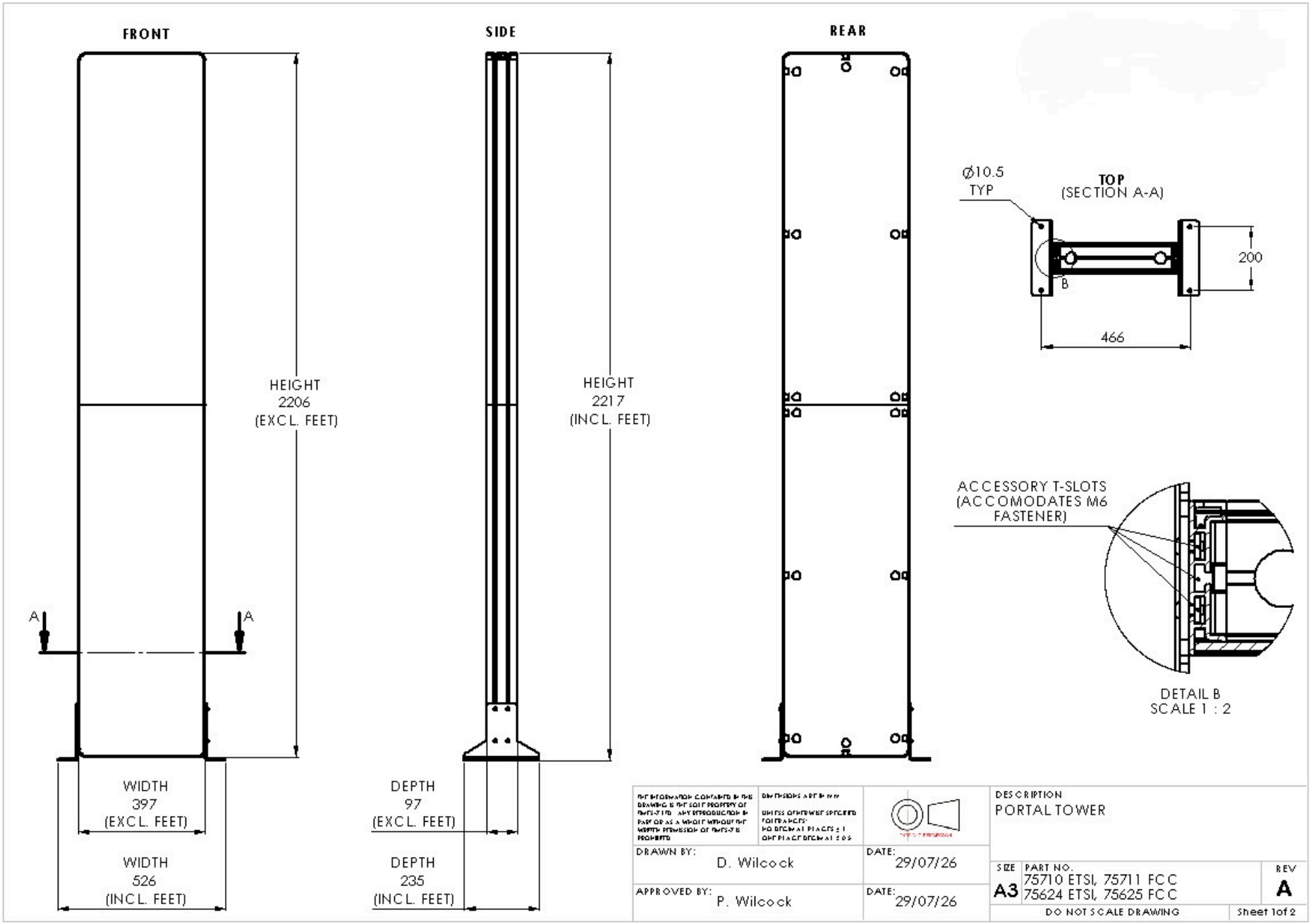
MECHANICAL DRAWING FOR TIMES-7 PORTAL TOWER



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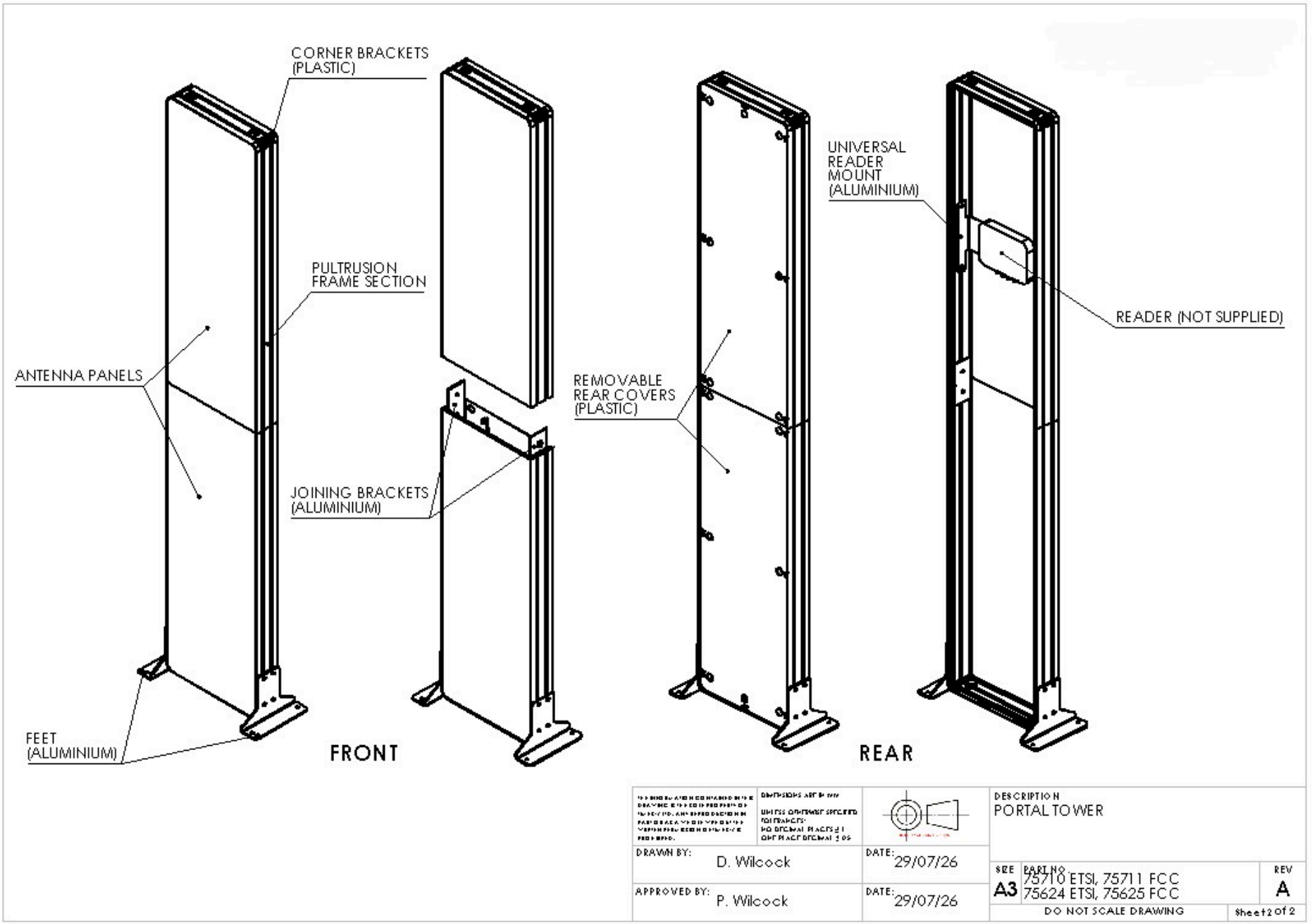
MECHANICAL DRAWING FOR TIMES-7 PORTAL TOWER



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