

UTV-01

UHF PANEL ANTENNA

FEATURES

- horizontal polarization
- broadband 470 ÷ 860 MHz
- 12 dB gain
- directional pattern
- suitable as a component in various arrays



ELECTRICAL DATA

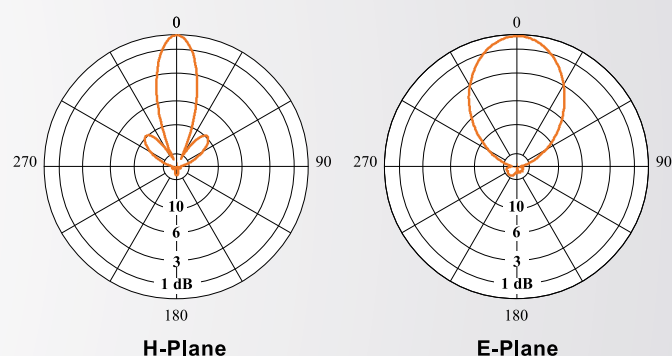
ANTENNA TYPE	UTV-01	UTV-01/E *
FREQUENCY RANGE	470 ÷ 860 MHz	
IMPEDANCE	50 ohm	
CONNECTOR	7/8" EIA 90°	7/16 F 90° or 7/8" EIA 90°
MAX POWER	2.5 kW	1.5 kW (7/16 F 90°) 2.5 kW (7/8" EIA 90°)
VSWR	≤ 1.1	
POLARIZATION	Horizontal	
GAIN (referred to half wave dipole)	12 dB	
HALF POWER BEAMWIDTH	E-Plane ± 32° H-Plane ± 12°	
LIGHTNING PROTECTION	All metal parts DC grounded	

* UTV-01/E white radome only

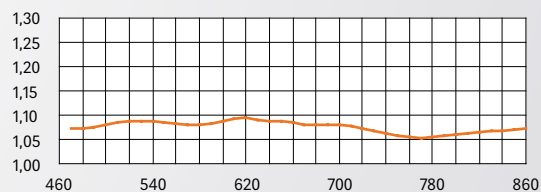
MECHANICAL DATA

DIMENSIONS mm (in)	1000 x 450 x 280 (39.37 x 17.72 x 11.02)
WEIGHT kg (lb)	14.5 (32)
WIND SURFACE m ² (ft ²)	0.45 (4.8)
WIND LOAD kN (lbf) at 160 km/h (100 mph)	0.70 (157)
MAX WIND VELOCITY km/h (mph)	220 (136.7)
MATERIALS	Brass, aluminium, stainless steel, teflon, fiberglass (radome)
ICING PROTECTION	Full radome
RADOME COLOUR	Orange (RAL 2009) - White (standard)
MOUNTING	Directly on supporting mast or with special pipe clamps

RADIATION PATTERNS (Mid Band)

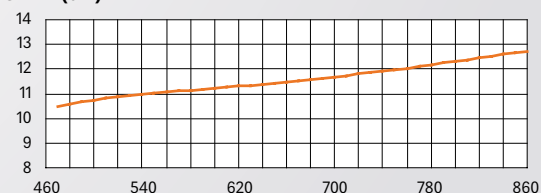


VSWR



FREQ. (MHz)

GAIN (dB)



FREQ. (MHz)

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FEATURES

- radiating systems with UTV-01 panels
- very high power systems
- omnidirectional or directional patterns
- equal or unequal split ratio power distribution network



UTV-01/64
HALIFAX, CANADA

ELECTRICAL DATA

FREQUENCY RANGE	470 ÷ 860 MHz
IMPEDANCE	50 ohm
CONNECTOR	EIA flange according to system power rating
POWER RATING	The antenna system can accept any power according to requirements
VSWR	≤ 1.05 in the operating channels or ≤ 1.15 Throughout the frequency range
POLARIZATION	Horizontal
GAIN	Refer to table
HORIZONTAL PATTERN	Any type according to requirement
VERTICAL PATTERN	Null fill, beam tilt and special requirements to order
OTHER FEATURES	The antenna system can be supplied in split feed configuration (two equal halves). Each half can accept full power.

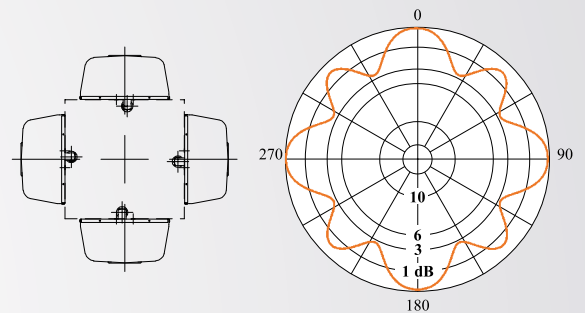
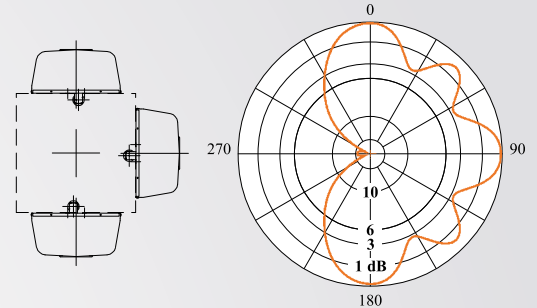
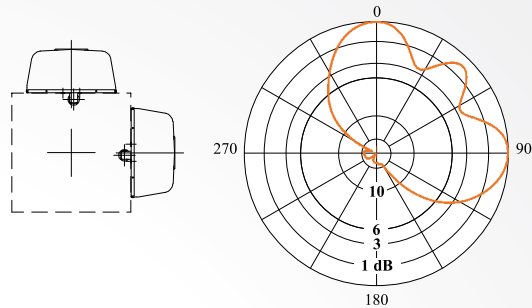
MECHANICAL DATA

HEIGHT OF ARRAY	Subject to number of bays
TOTAL NET WEIGHT	Refer to table
WIND LOAD	Refer to table
PRESSURIZABLE	Yes
MOUNTING HARDWARE	Available upon request

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HORIZONTAL PATTERNS WITH 2, 3 AND 4 FACES AT 666 MHz



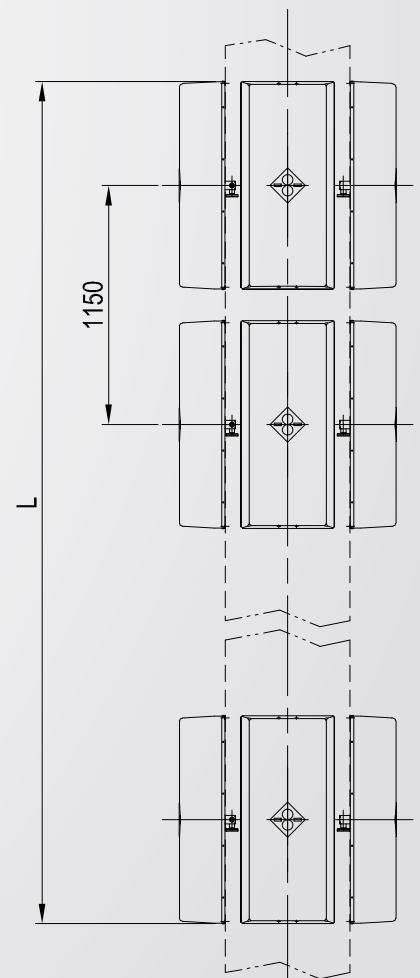
TECHNICAL DATA

NUMBER OF BAYS	PANELS PER BAY	GAIN dB (1)	GAIN TIMES (1)	WEIGHT (2) kg (lb)	ANTENNA HEIGHT L m (ft)	WIND LOAD (3) kN (lbf)	WIND LOAD (4) kN (lbf)
2	1	15.1	32.4	38 (84)		1.98 (445)	5.66 (1272)
	2	12.2	16.6	84 (185)	2.15	4.34 (976)	8.03 (1805)
	3	10.3	10.7	122 (269)	(7.05)	5.38 (1209)	9.06 (2037)
	4	9.1	8.2	168 (370)		5.23 (1176)	8.92 (2005)
4	1	18.3	67.6	84 (185)		4.08 (917)	7.77 (1747)
	2	15.3	34	168 (370)	4.45	8.98 (2019)	12.67 (2848)
	3	13.5	22.4	281 (619)	(14.6)	10.68 (2401)	14.37 (3231)
	4	12.3	17	340 (750)		10.37 (2331)	14.06 (3161)
6	1	20	100	122 (269)		6.29 (1414)	9.97 (2241)
	2	17	50.1	281 (619)	6.75	13.65 (3069)	17.33 (3896)
	3	15.3	34	378 (833)	(22.15)	16.16 (3633)	19.85 (4462)
	4	14	25.2	460 (1014)		15.71 (3532)	19.40 (4361)
8	1	21.3	134.8	168 (370)		8.31 (1868)	12.00 (2698)
	2	18.3	67.6	340 (750)	9.05	18.27 (4107)	21.95 (4935)
	3	16.6	45.7	460 (1014)	(29.69)	21.67 (4872)	25.36 (5701)
	4	15.3	34	583 (1285)		21.04 (4730)	24.73 (5560)
10	1	22.3	169.8	224 (494)		10.42 (2343)	14.10 (3170)
	2	19.3	85.1	418 (922)	11.35	21.09 (4741)	24.78 (5571)
	3	17.6	57.5	672 (1481)	(37.24)	27.14 (6101)	30.83 (6931)
	4	16.3	42.6	896 (1975)		26.36 (5926)	30.04 (6753)
12	1	23	199.5	281 (619)		12.54 (2819)	16.23 (3649)
	2	20.1	102.3	460 (1014)	13.65	27.54 (6191)	31.23 (7021)
	3	18.3	67.6	843 (1858)	(44.78)	31.97 (7187)	35.65 (8014)
	4	17.1	51.2	992 (2187)		32.08 (7212)	35.77 (8041)
16	1	24.3	269.2	340 (750)		16.75 (3766)	20.44 (4595)
	2	21.3	134.8	583 (1285)	18.25	36.78 (8268)	40.47 (9098)
	3	19.6	91.2	992 (2187)	(59.88)	43.14 (9698)	46.83 (10528)
	4	18.4	69.2	1263 (2784)		44.16 (9928)	47.85 (10757)

(1) referred to half wave dipole. Losses of power distribution network not included.

(2) without mounting hardware

(3) Without top mast, v= 160 km/h (100 mph) (4) With top mast, v= 160 km/h (100 mph)

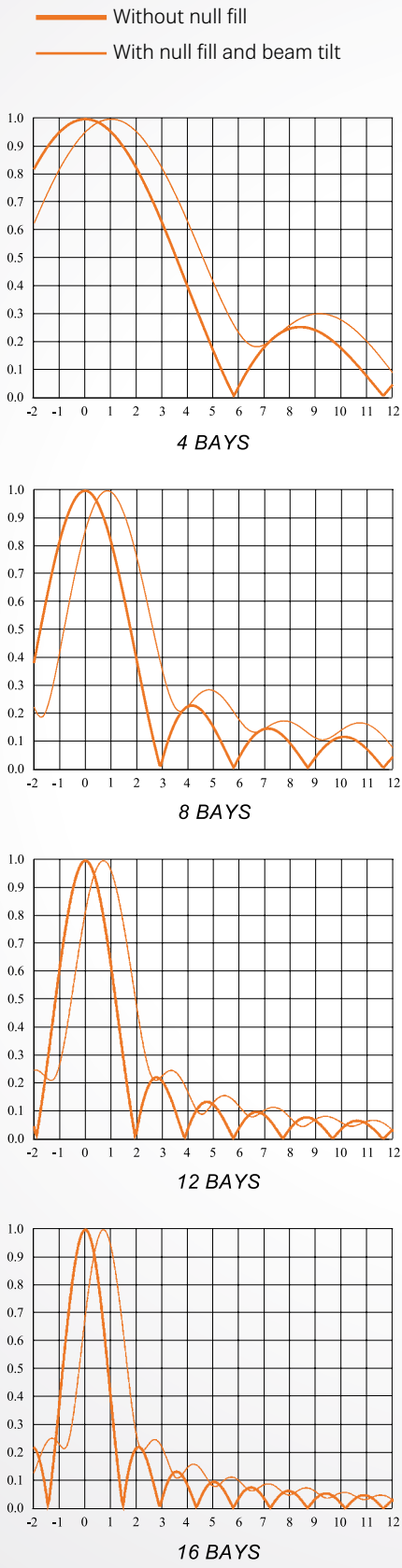
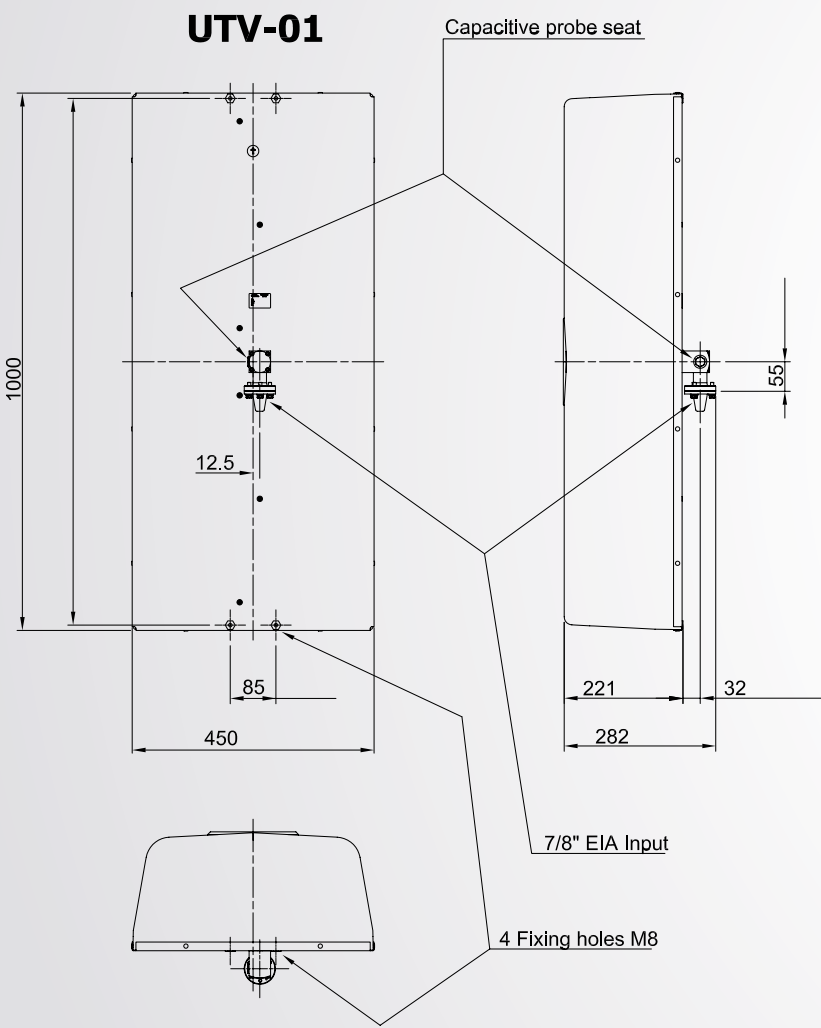


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UHF PANEL ANTENNA

DIMENSIONAL DETAILS

VERTICAL PATTERN



All dimensions are in millimeters