

3VTV-04

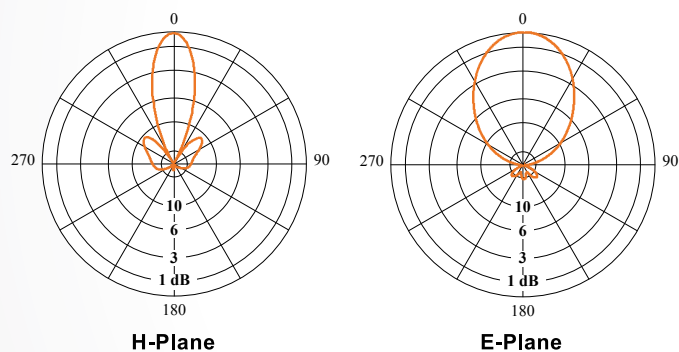
VHF PANEL ANTENNA

FEATURES

- horizontal polarization
- broadband 174 ÷ 230 MHz
- 11 dB gain
- directional pattern
- suitable as a component in various arrays



RADIATION PATTERNS (Mid Band)



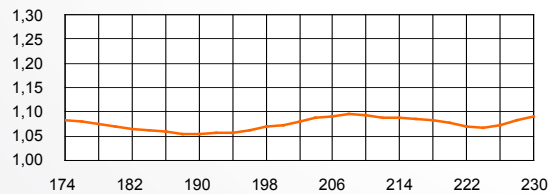
ELECTRICAL DATA

ANTENNA TYPE	3VTV-04	3VTV-04/E
FREQUENCY RANGE	174 ÷ 230 MHz	
IMPEDANCE	50 ohm	
CONNECTOR	7/8" EIA	
MAX POWER	3 kW	
VSWR	≤ 1.1	
POLARIZATION	Horizontal	
GAIN (referred to half wave dipole)	11 dB	
HALF POWER BEAMWIDTH	E-Plane ± 32° H-Plane ± 13°	
LIGHTNING PROTECTION	All Metal Parts DC Grounded	

MECHANICAL DATA

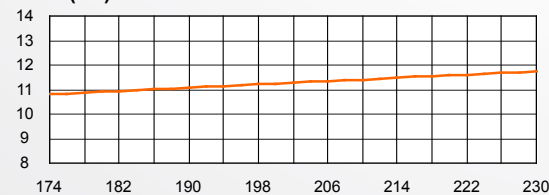
DIMENSIONS	2800x1300x520 mm	2800x1300x497 mm
WEIGHT	79 kg	75.5 kg
WIND SURFACE	1.62 m ²	1.44 m ²
WIND LOAD (at 150km/h)	1.77 kN	1.57 kN
MAX WIND VELOCITY	220 km/h	
MATERIALS	Reflector (hot dip galvanized steel) Dipole (stainless steel) Internal parts (silver plated brass, deoxidized aluminium) Radome (fiberglass)	
ICING PROTECTION	Feed point radome (only for 3VTV-04)	
RADOME COLOUR	Grey (standard)	
MOUNTING	Directly on supporting mast or tower	

VSWR



FREQ. (MHz)

GAIN (dB)



FREQ. (MHz)

3VTV-04

VHF PANEL ANTENNA

FEATURES

- radiating systems with 3VTV-04 panel
- high power antenna systems
- omnidirectional or directional patterns
- equal or unequal split ratio power distribution network



3VTV-04/16 (4x4) in TURKEY

ELECTRICAL DATA

FREQUENCY RANGE	174 ÷ 230 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
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.

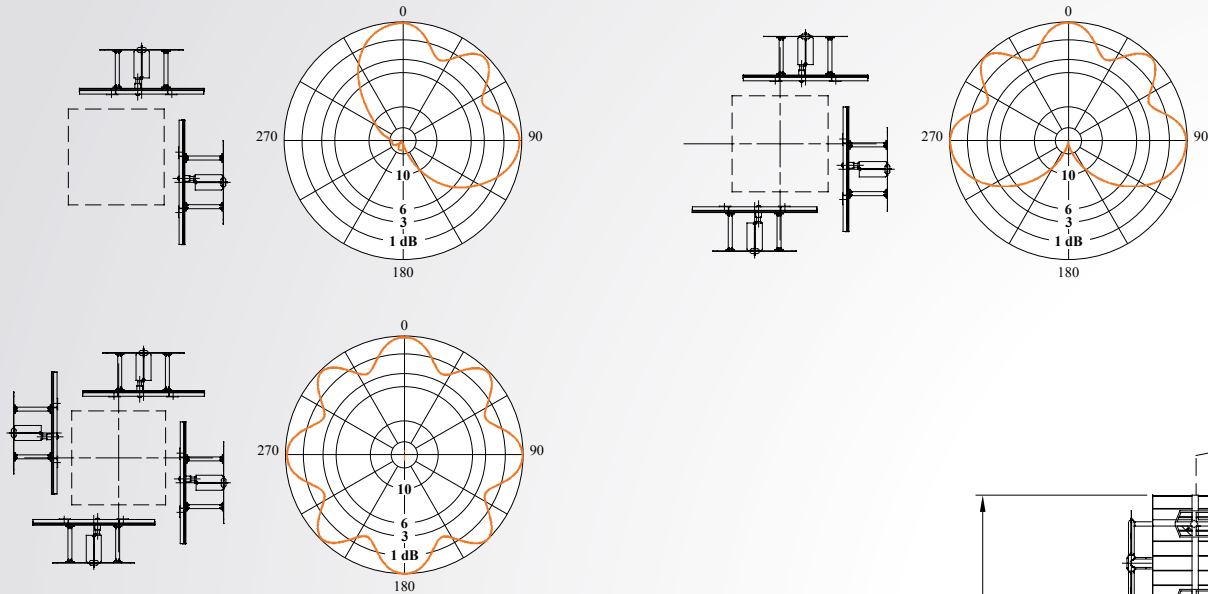
MECHANICAL DATA

HEIGHT OF ARRAY	Subject to number of bays
TOTAL NET WEIGHT	Refer to table
WIND LOAD	Refer to table
PRESSURIZABLE	Yes
RADOME COLOUR	Grey (standard)
MOUNTING HARDWARE	Available upon request

3VTV-04

VHF PANEL ANTENNA

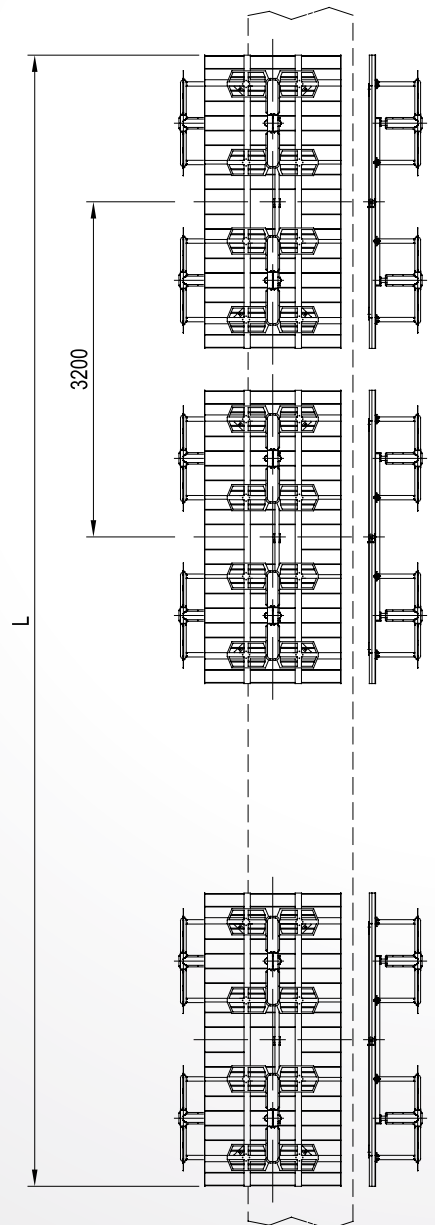
HORIZONTAL PATTERNS WITH OFFSET 2,3 AND 4 FACES AT 200 MHz



TECHNICAL DATA

NUMBER OF BAYS	PANELS PER BAY	GAIN dB (1)	GAIN TIMES (1)	WEIGHT kg (2a)	WEIGHT kg (2b)	ANTENNA HEIGHT L m	WIND LOAD (3a) kN	WIND LOAD (3b) kN
1	1	11	12.6	79	75	2.8	1.77	1.57
	2	8	6.3	170	163		2.98	2.64
	3	6.2	4.2	257	247		3.87	3.43
	4	5	3.2	346	332		4.75	4.22
2	1	14	25.1	170	163	6	3.54	3.14
	2	11	12.6	346	332		5.96	5.28
	3	9.2	8.3	537	516		7.74	6.86
4	4	8	6.3	729	701	12.4	9.51	8.44
	1	17	50.1	346	332		7.08	6.28
	2	14	25.1	729	701		11.92	10.57
	3	12.3	16.9	1064	1022		15.48	13.73
6	4	11	12.6	1389	1333	18.8	19.03	16.88
	1	18.9	77.6	537	516		10.62	9.42
	2	15.9	38.9	1064	1022		17.89	15.86
	3	14	25.1	1582	1519		23.21	20.59
8	4	12.9	19.5	2101	2017	25.2	28.54	25.32
	1	20	100	729	701		14.16	12.56
	2	17	50.1	1389	1333		23.85	21.15
	3	15.3	33.9	2101	2017		30.95	27.46
	4	14	25.1	2756	2644		38.06	33.76

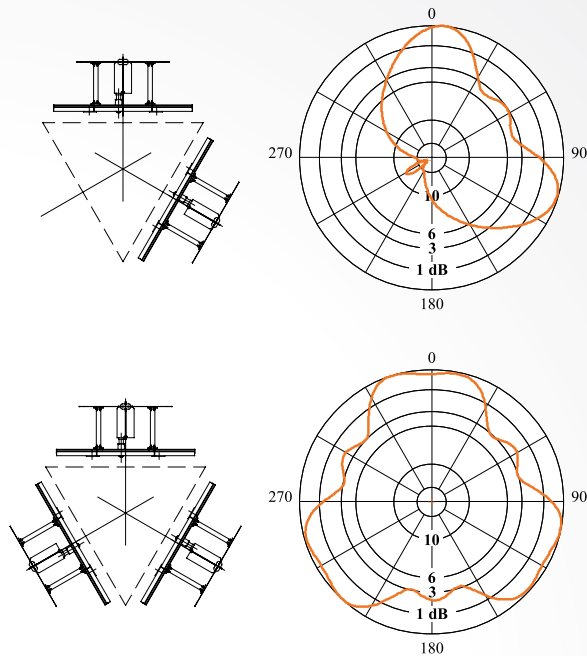
(1) referred to half wave dipole. Losses of power distribution network not included.
 (2a) for 3vtv-02 and without mounting hardware. - (2b) for 3vtv-02/E and without mounting hardware.
 (3a) for 3vtv-02 (v= 150 km/h) - (3b) for 3vtv-02/E (v= 150 km/h)



3VTV-04

VHF PANEL ANTENNA

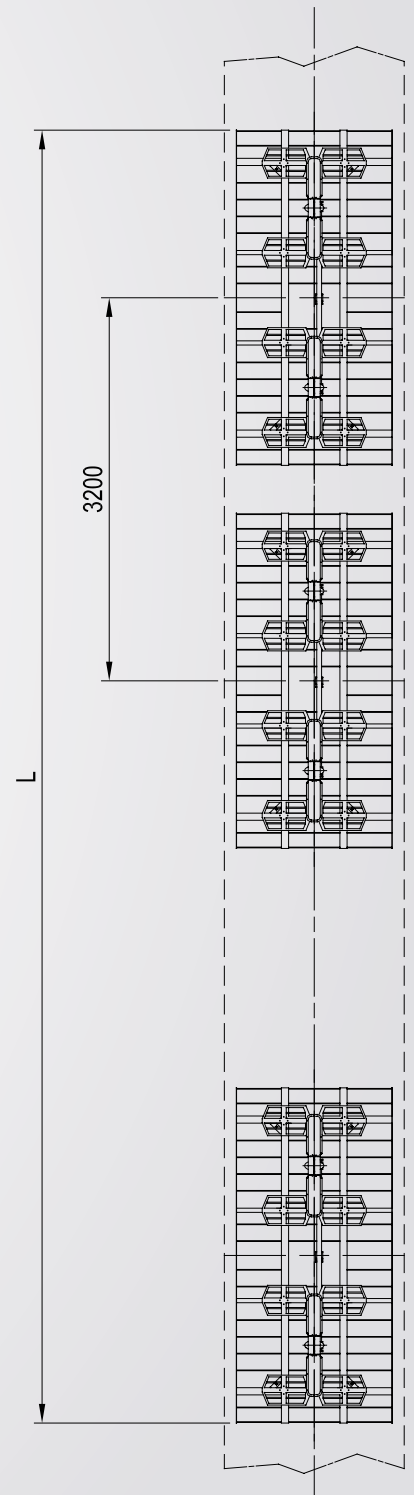
HORIZONTAL PATTERNS 2 AND 3 FACES AT 200 MHz



TECHNICAL DATA

NUMBER OF BAYS	PANELS PER BAY	GAIN dB (1)	GAIN TIMES (1)	WEIGHT kg (2a)	WEIGHT kg (2b)	ANTENNA HEIGHT L m	WIND LOAD (3a) kN	WIND LOAD (3b) kN
1	1	10	10	79	75		1.77	1.57
	2	7	5	170	163	2.8	2.58	2.29
	3	5.2	3.3	257	247		3.56	3.15
2	1	13	20	170	163		3.39	3.01
	2	10	10	346	332	6	5.07	4.50
	3	8.2	6.8	537	516		7.16	6.35
4	1	16	39.8	346	332		6.78	6.02
	2	13	20	729	701	12.4	10.15	9.00
	3	5.3	3.4	1064	1022		14.33	12.71
6	1	17.9	61.6	537	516		10.18	9.03
	2	14.9	30.9	1064	1022	18.8	15.23	13.51
	3	13	20	1582	1519		21.50	19.07
8	1	19	79.4	729	701		13.58	12.04
	2	16	39.8	1389	1333	25.2	20.31	18.01
	3	14.2	26.3	2101	2017		28.66	25.42

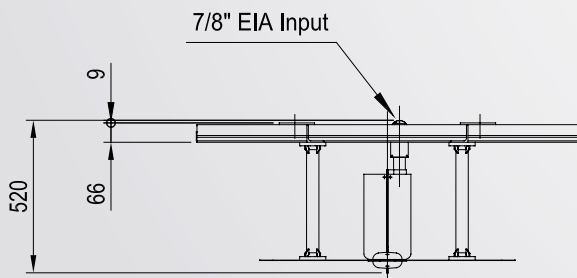
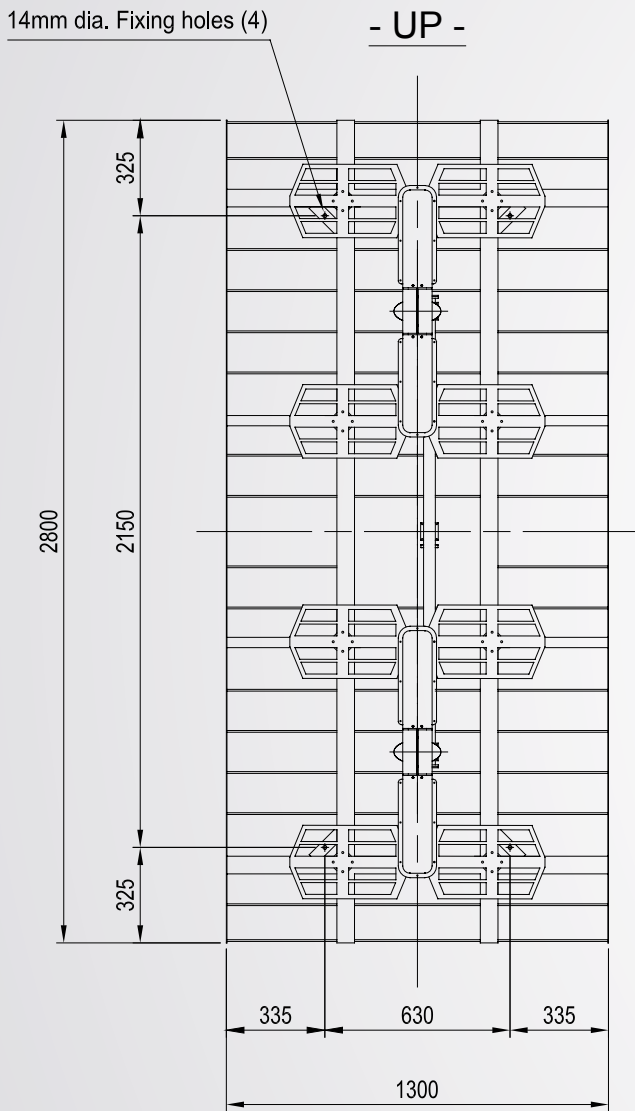
(1) referred to half wave dipole. Losses of power distribution network not included.
 (2a) for 3vtv-02 and without mounting hardware. - (2b) for 3vtv-02/E and without mounting hardware.
 (3a) for 3vtv-02 (v= 150 km/h) - (3b) for 3vtv-02/E (v= 150 km/h)



3VTV-04

VHF PANEL ANTENNA

DIMENSIONAL DETAILS



VERTICAL PATTERN

— Without null fill

— With null fill and beam tilt

