

承認	検認	検認	担当

## 技適基準適合証明用アンテナ特性資料

# Antenna Characteristics Document for Technical Regulations Conformity Certification

### T20-030-1184

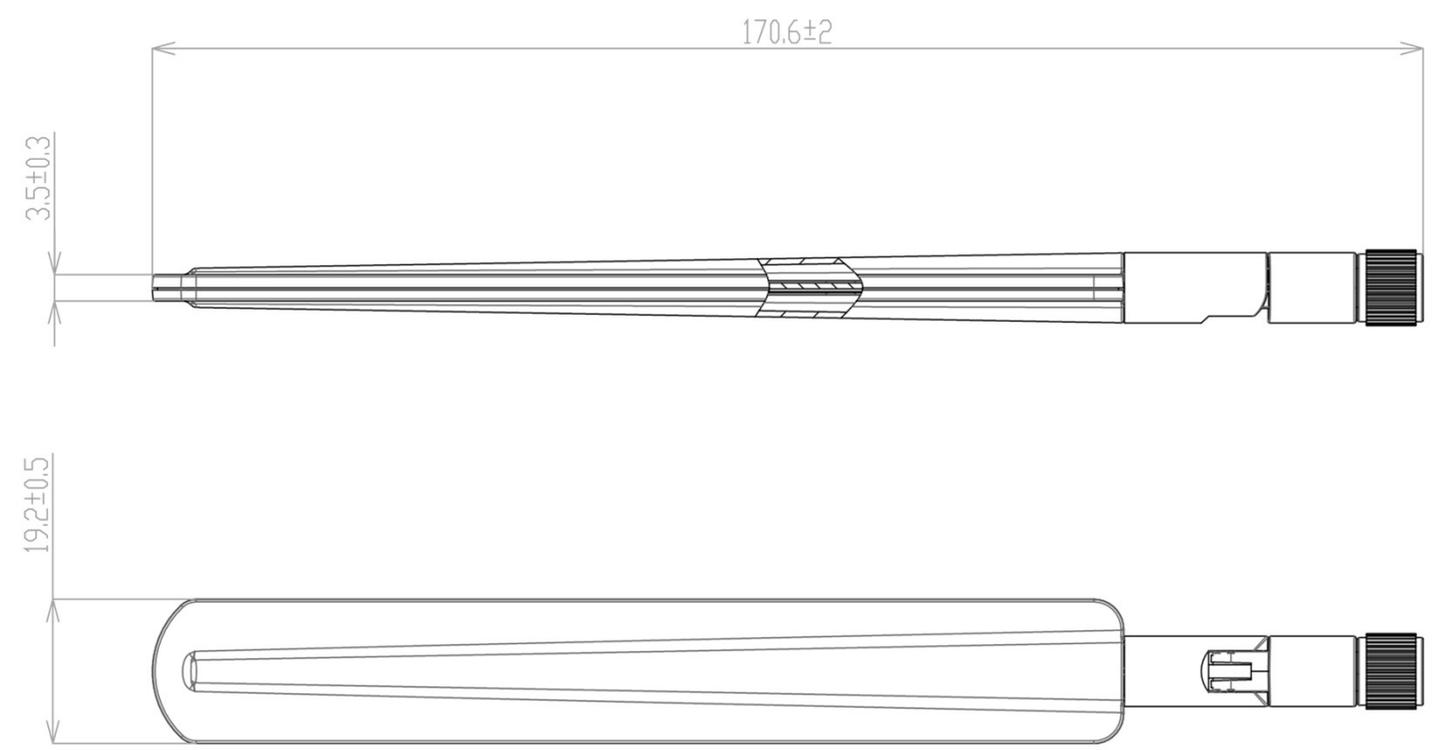
16 JANUARY. 2025  
Staf Corporation  
Electric Group

Address: Staf Bldg. 2-6-12 Shin-Yokohama, Kohoku-ku,  
Yokohama-shi, Kanagawa-ken, Japan

## 1.仕様 Specification

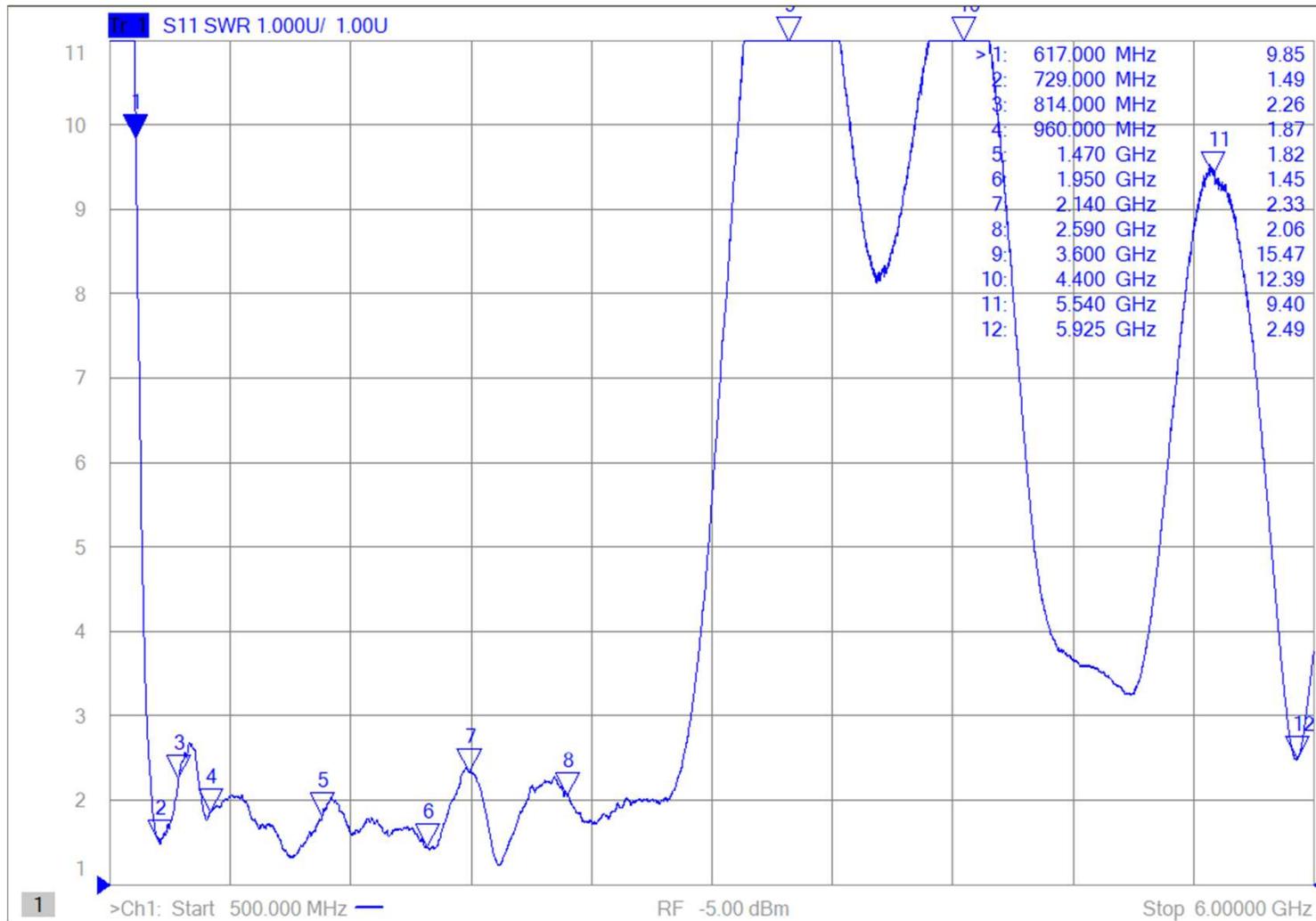
項目	記載内容
メーカー名 Manufacturer	スタッフ株式会社 Staf Corporation
品名（製品名称） Product Name	アンテナ Antenna
技適申請番号 Application Number	T20-030-1184
測定周波数 Frequency	617~5850[MHz]
アンテナ型式 Antenna Type	Dipole Antenna ( $\lambda/2 \sim \lambda$ )
最大絶対利得 Maximum Absolute Gain	617~5850[MHz]: 3[dBi]以下 617~5850[MHz]: 3[dBi] or less ※但し、B30(2305~2360[MHz])、B40(2300~2400[MHz])、 B41(2496~2690[MHz])に限り、4[dBi]以下 詳細はグラフ参照のこと ※However, for B30(2305~2360[MHz]), B40(2300~2400[MHz]), B41 (2496~2690[MHz]), 4[dBi] or less See graph for details
インピーダンス Impedance	50 $\Omega$
コネクタ形状 Connector Type	SMA-P

## 2.外形図 Outside Dimension Drawing

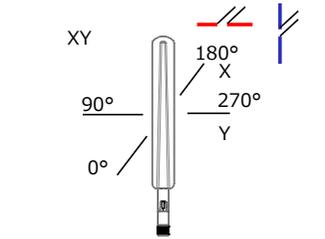
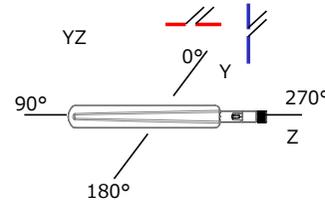
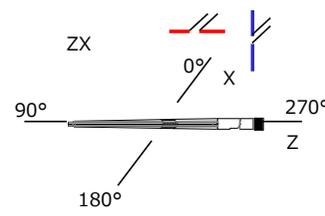


单位:mm  
Unit:mm

### 3.VSWR



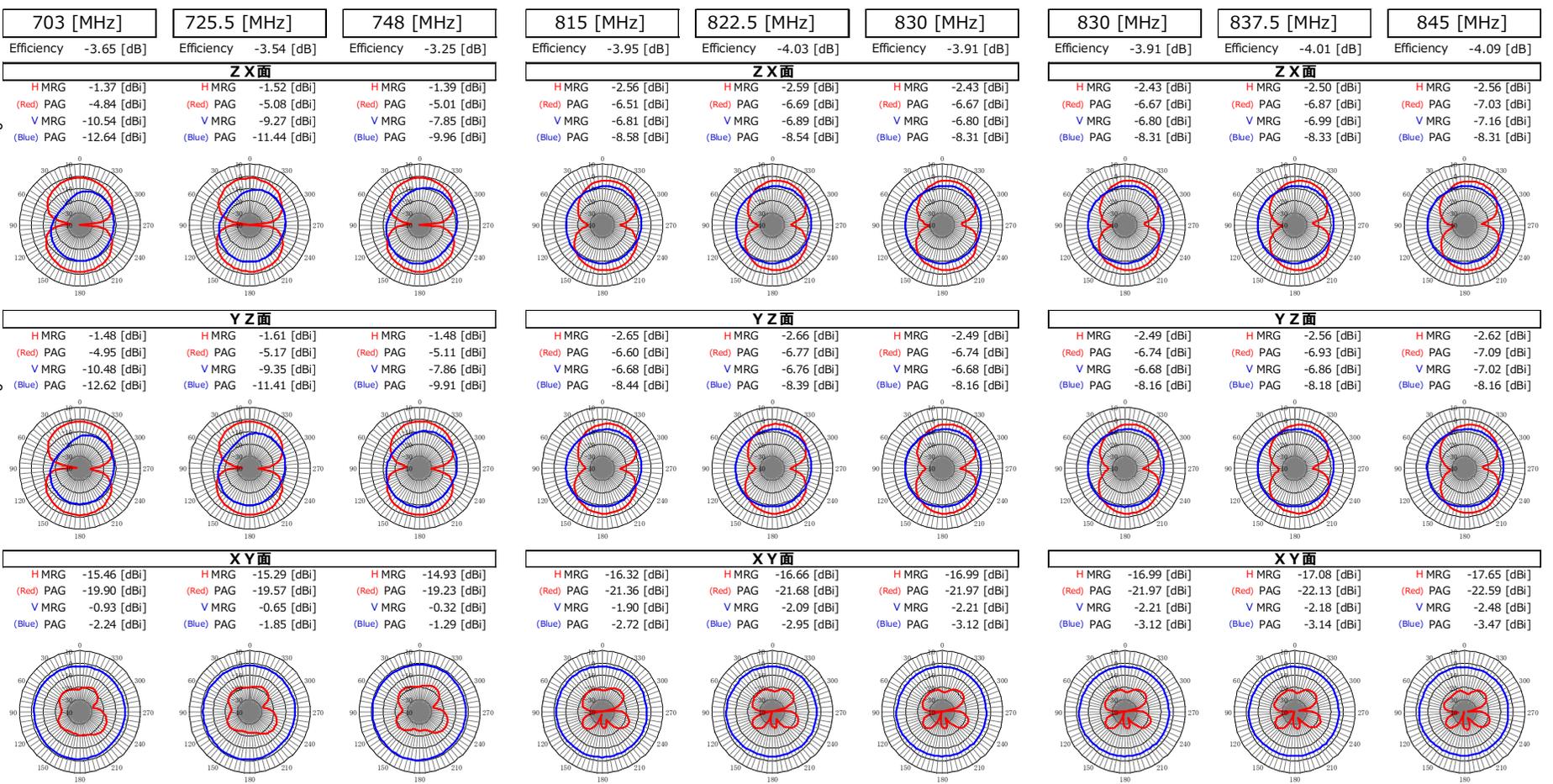
# 4. 利得・指向性特性 Gain and Radiation Pattern Characteristics



## B28

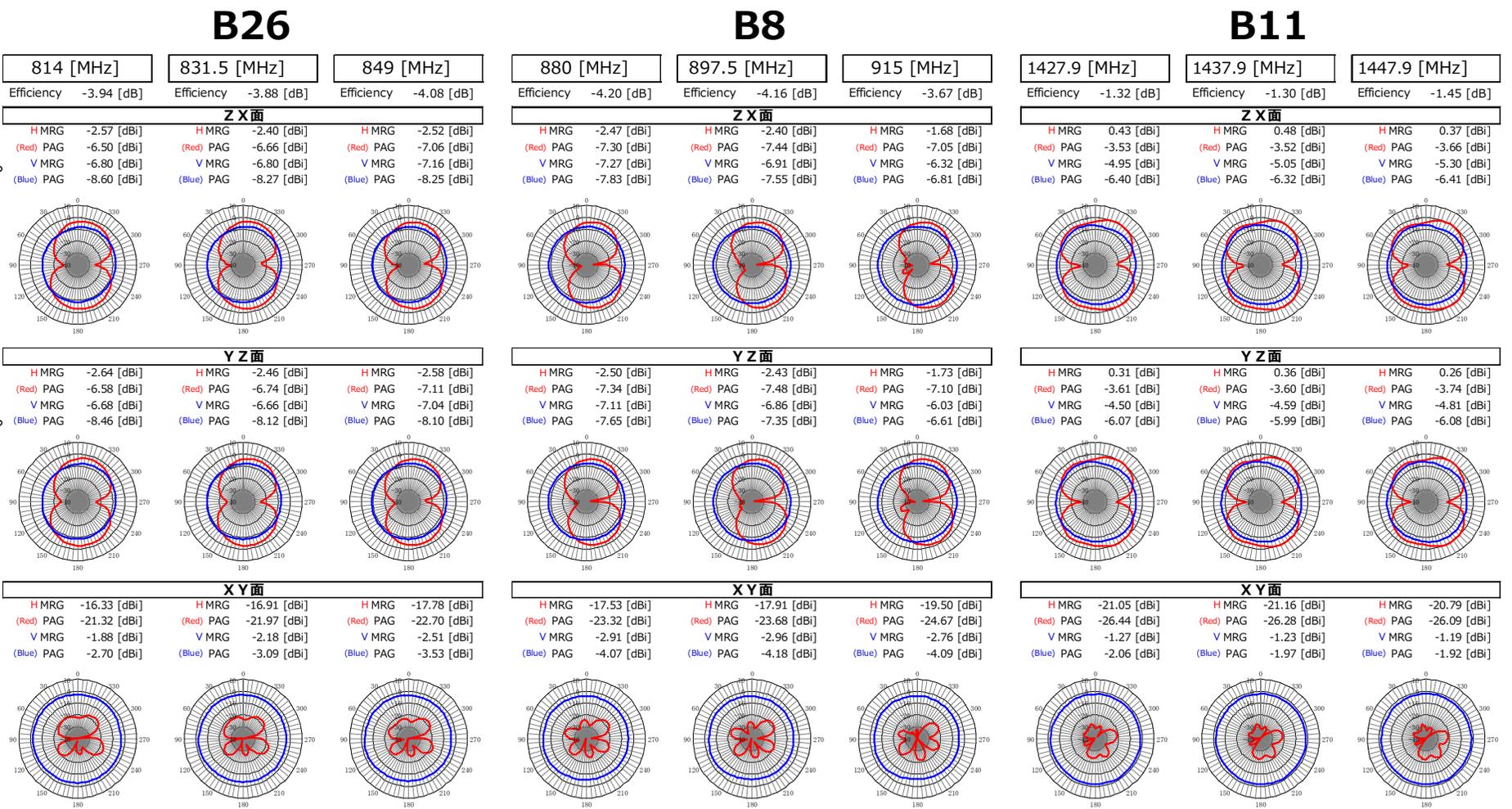
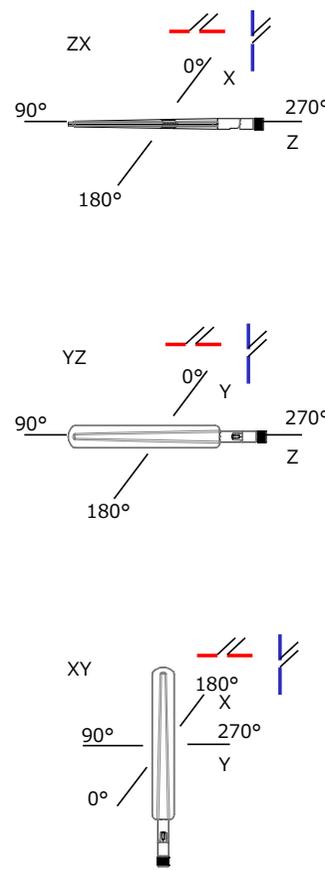
## B18

## B19



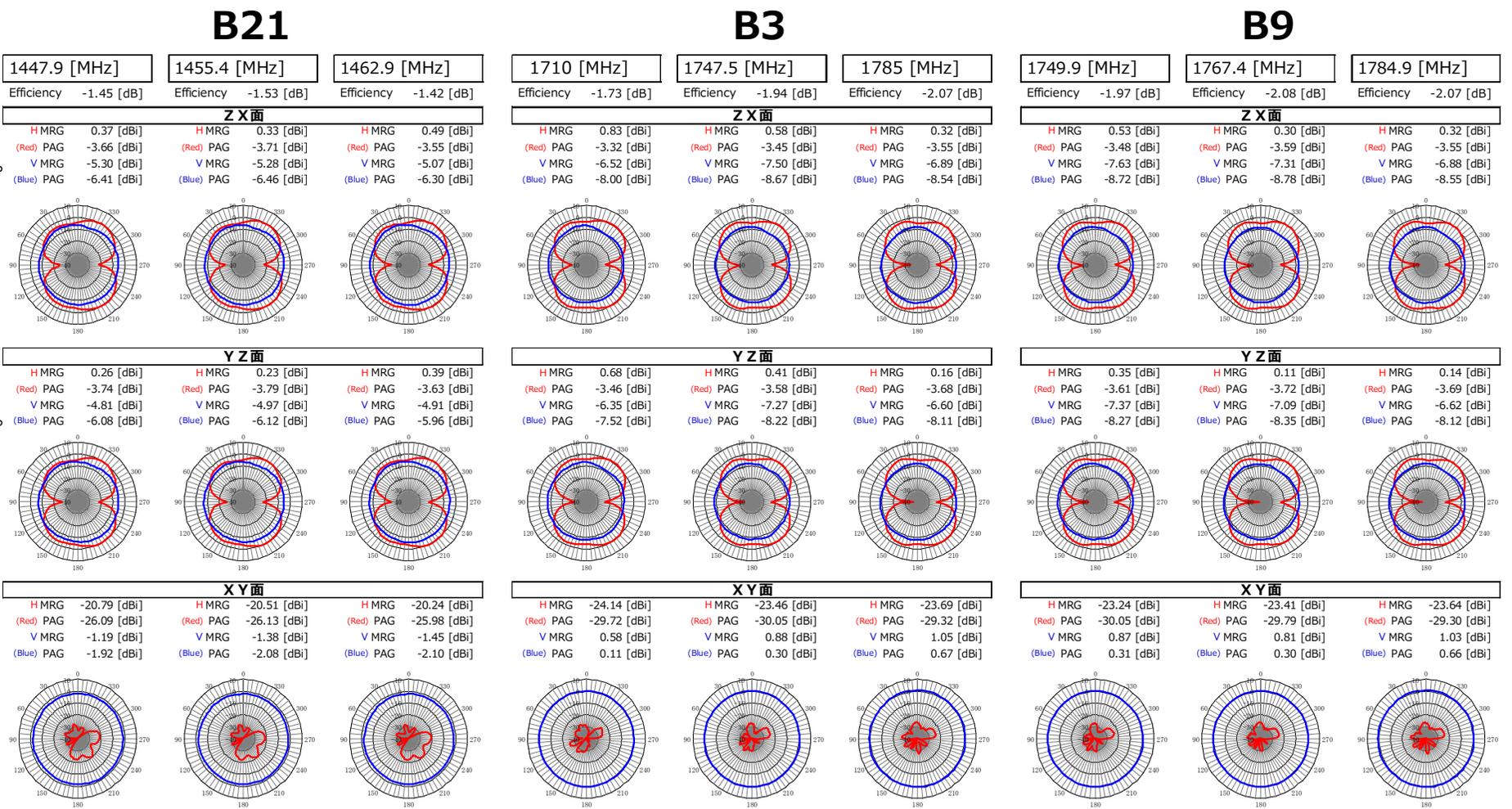
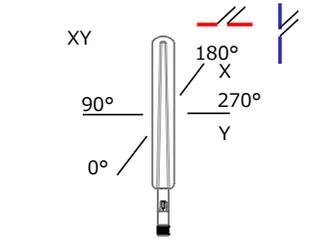
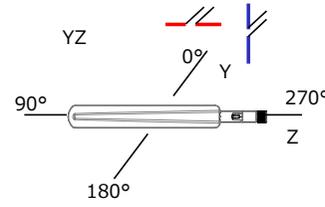
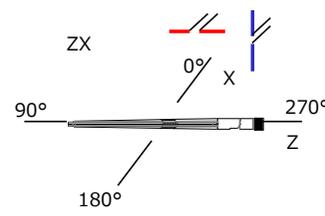
— 水平偏波 Horizontal Polarized Wave      MRG = 最大利得 Maximum Absolute Gain  
— 垂直偏波 Vertical Polarized Wave                      PAG = 平均利得 Pattern Average Gain

# 4. 利得・指向性特性 Gain and Radiation Pattern Characteristics



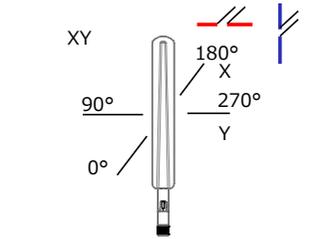
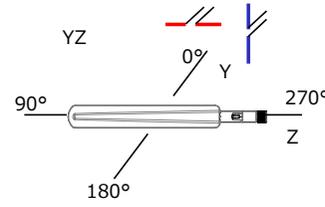
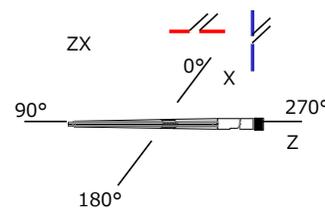
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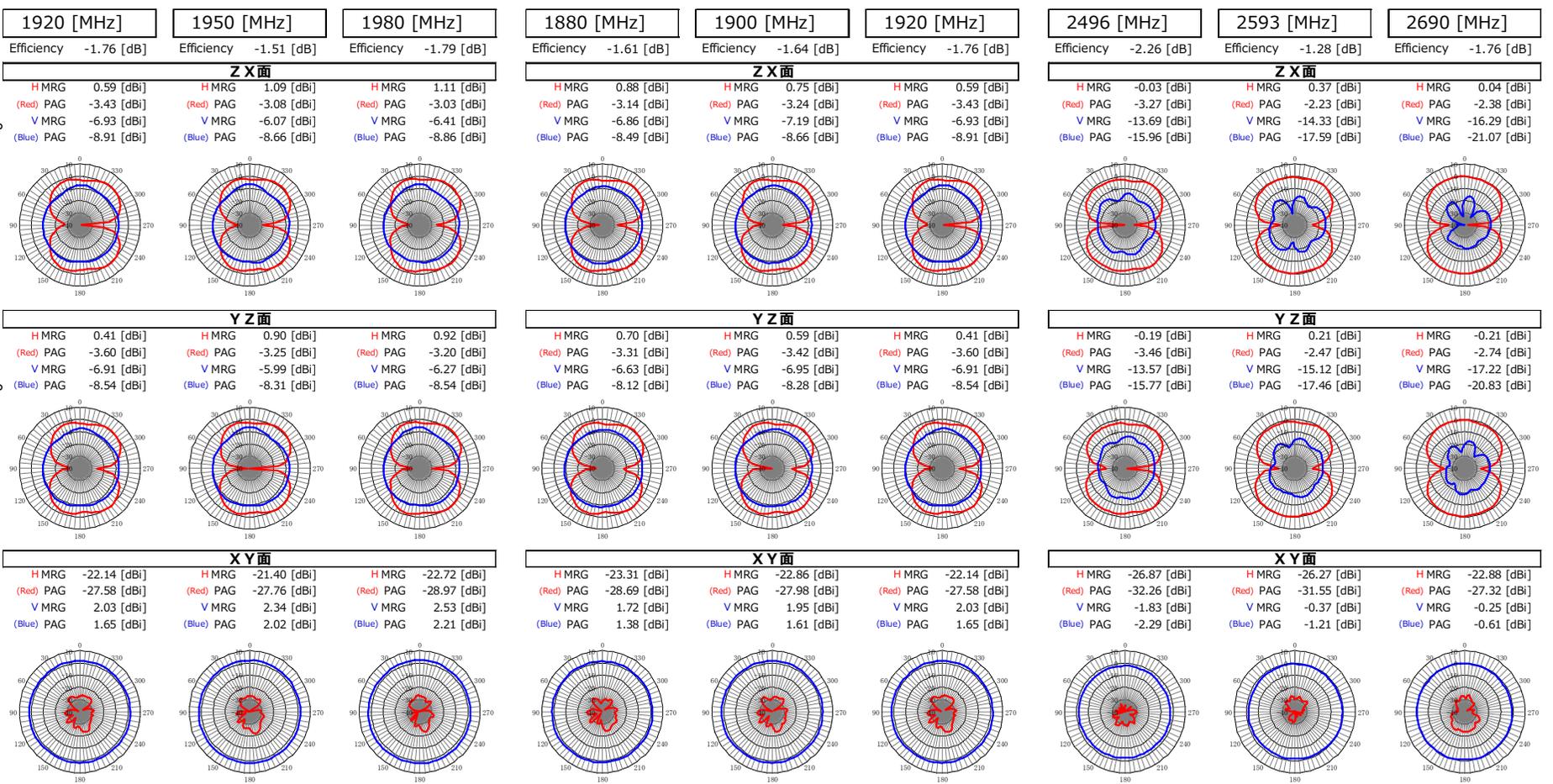
# 4. 利得・指向性特性 Gain and Radiation Pattern Characteristics



## B1

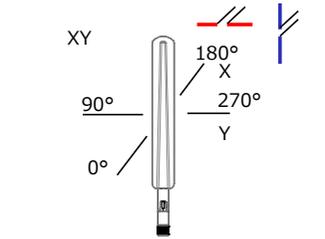
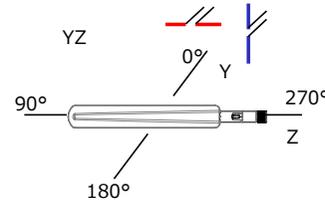
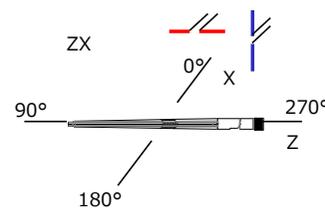
## B39

## B41



— 水平偏波 Horizontal Polarized Wave      MRG = 最大利得 Maximum Absolute Gain  
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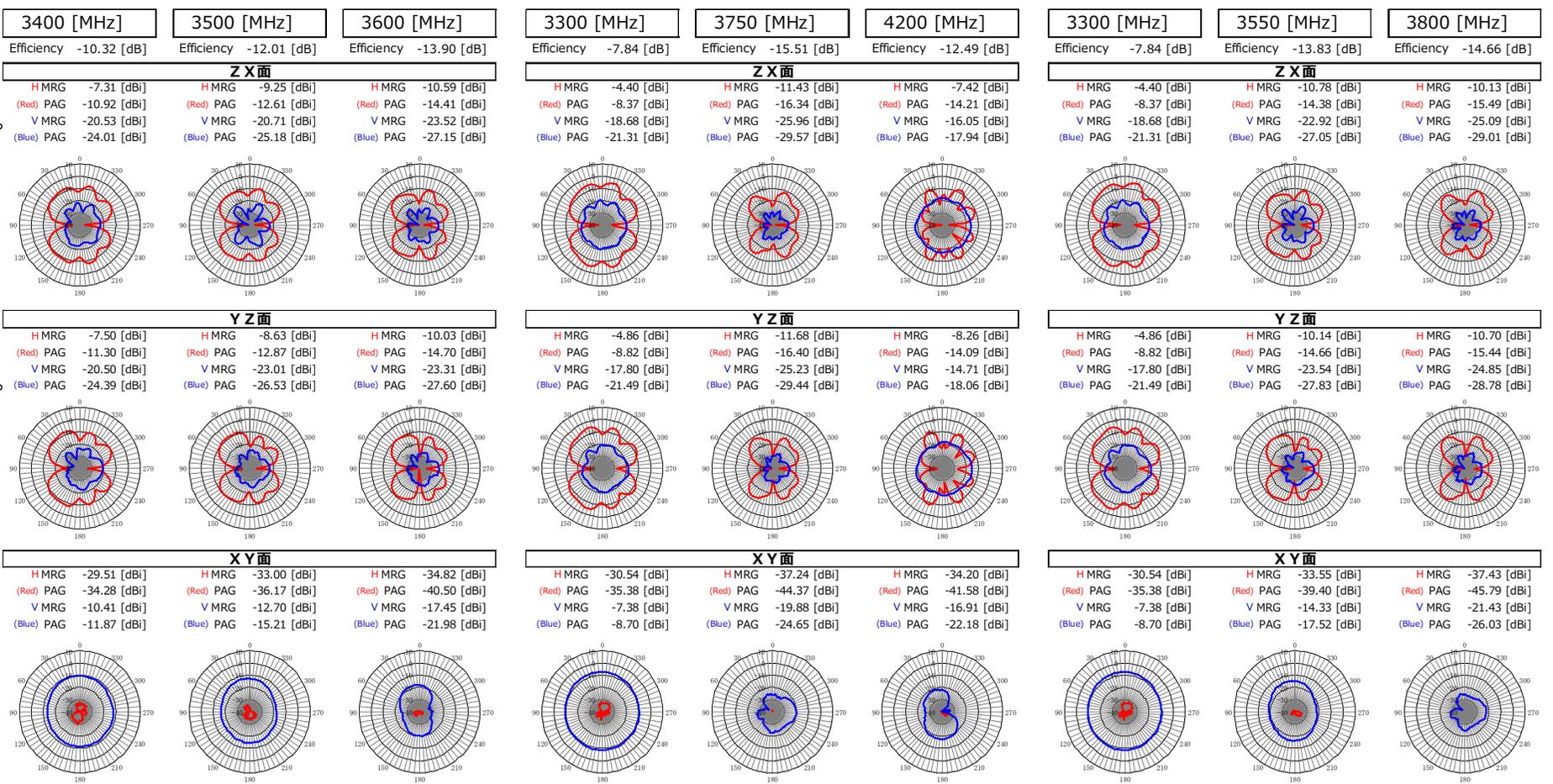
# 4. 利得・指向性特性 Gain and Radiation Pattern Characteristics



## B42

## n77

## n78

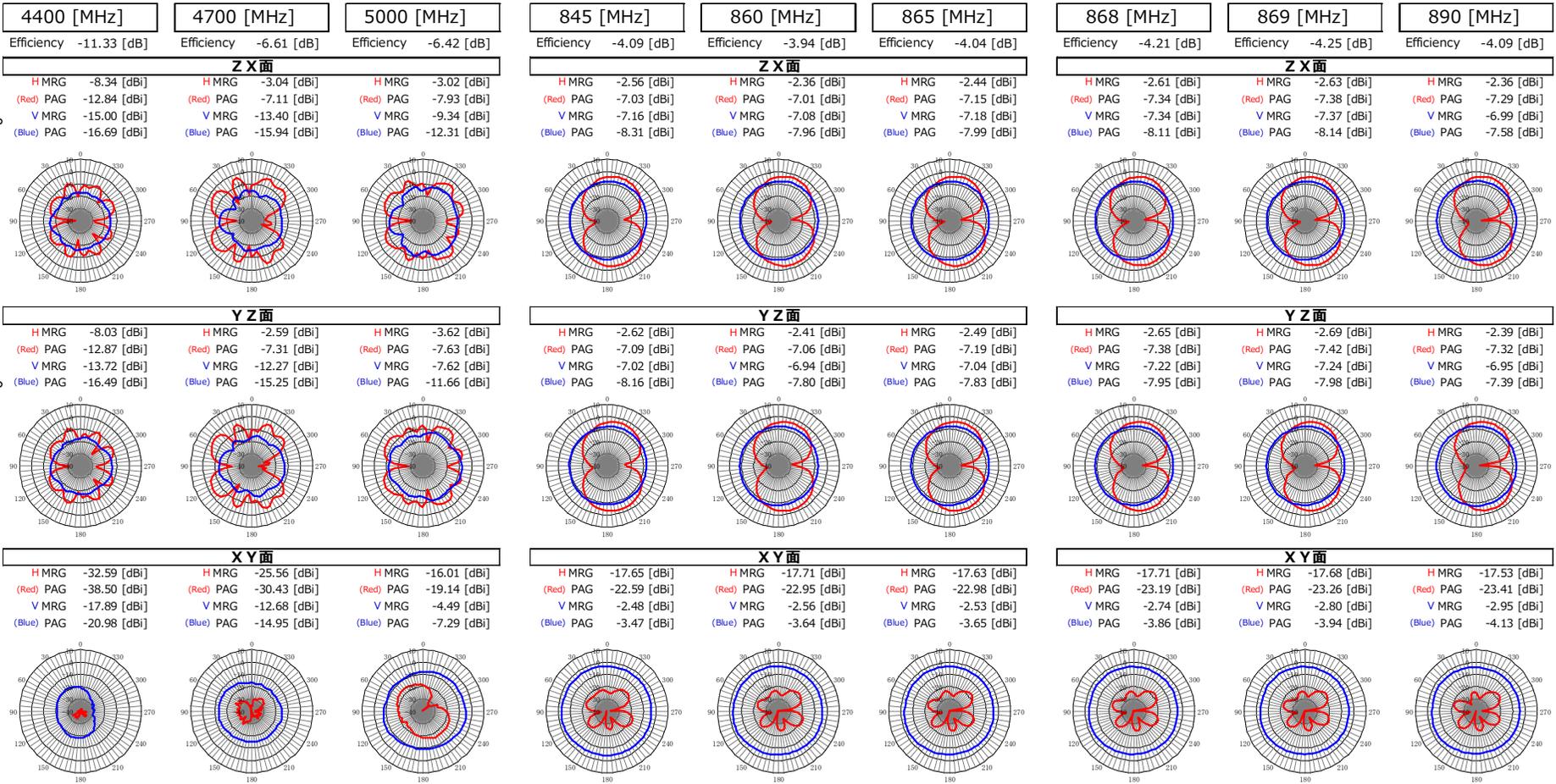
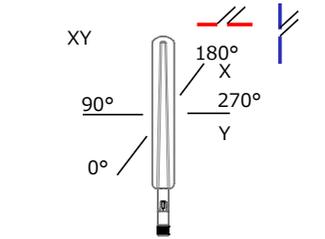
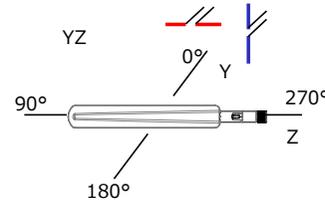
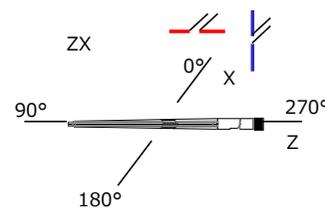


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# 4. 利得・指向性特性 Gain and Radiation Pattern Characteristics

## n79

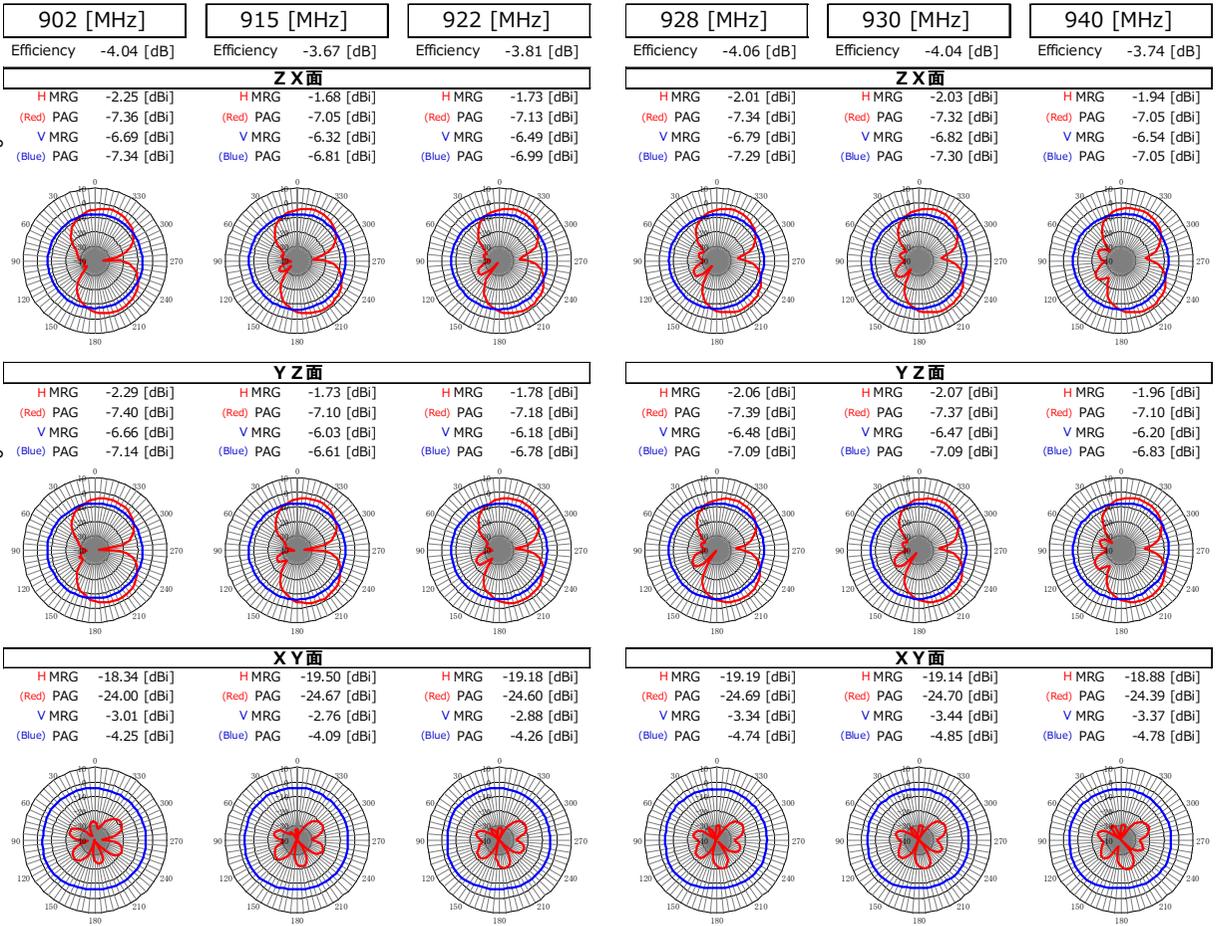
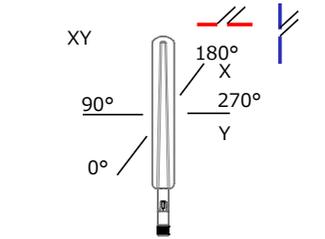
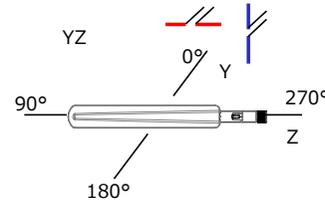
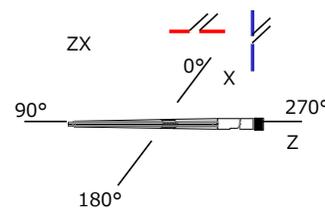
## Sub-GHz Band



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# 4. 利得・指向性特性 Gain and Radiation Pattern Characteristics

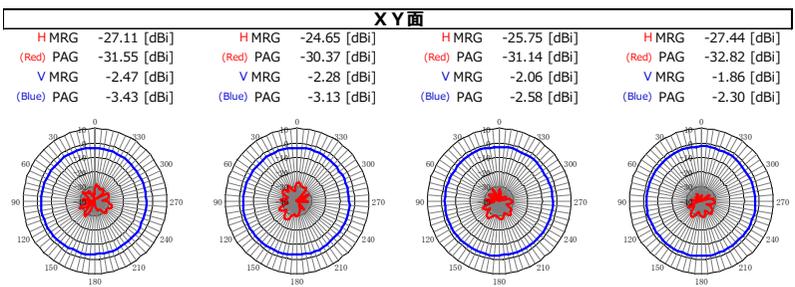
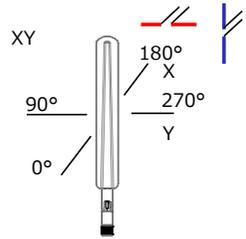
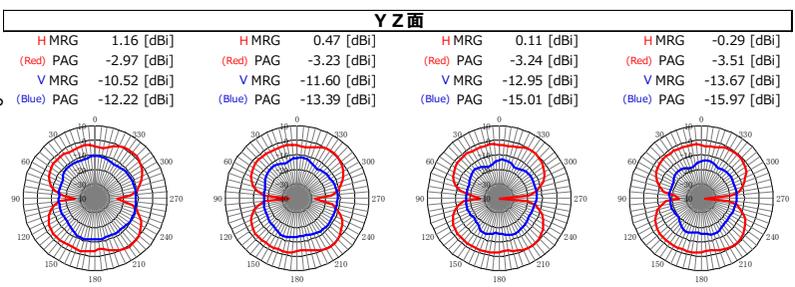
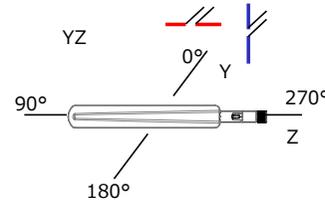
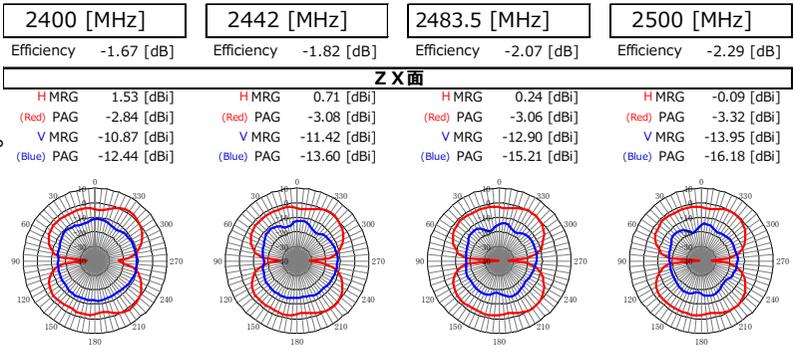
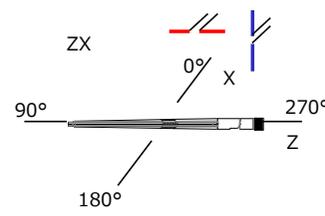
## Sub-GHz Band



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# 4. 利得・指向性特性 Gain and Radiation Pattern Characteristics

## 2.4GHz Band(Wi-Fi,etc.)

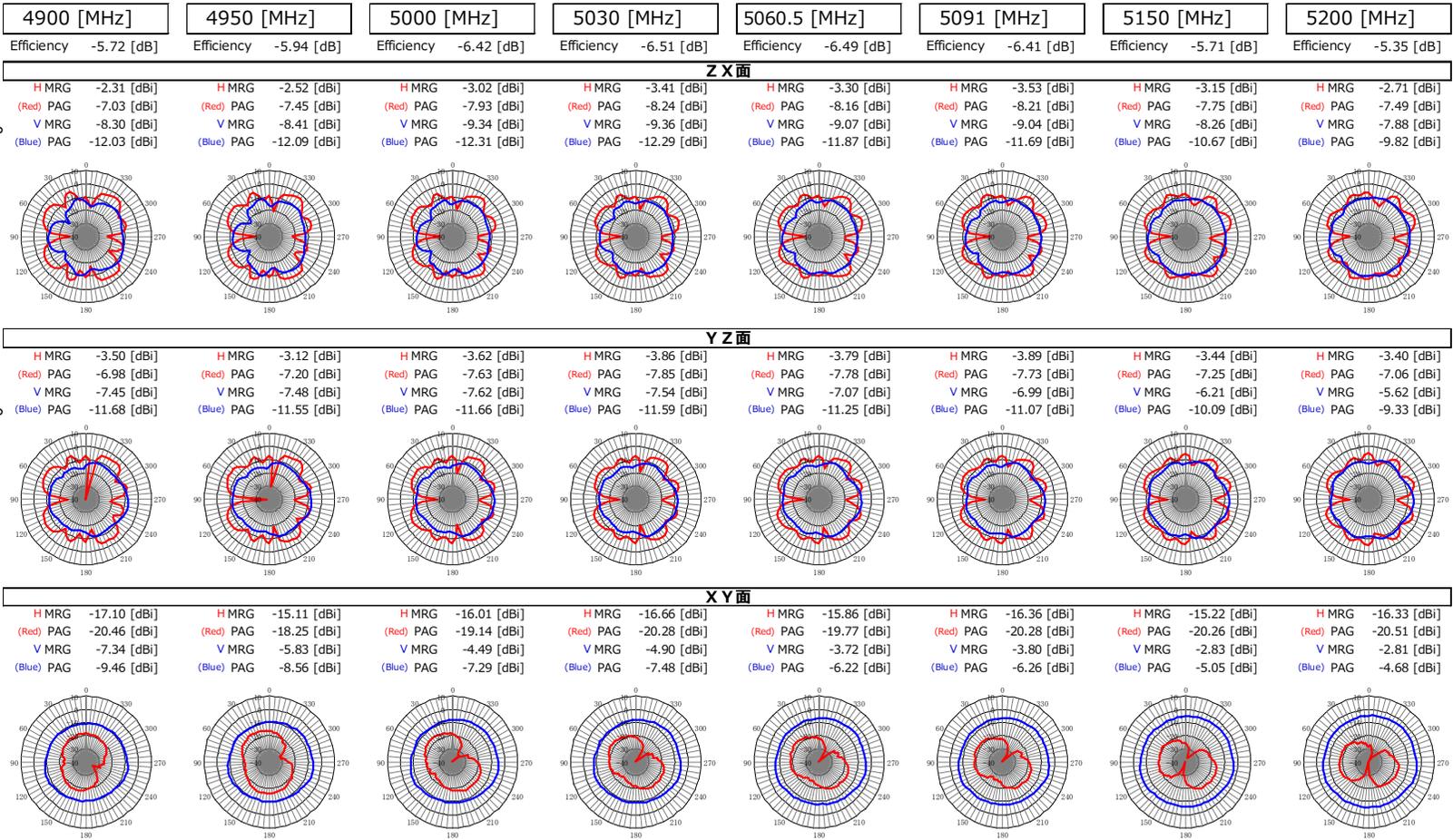
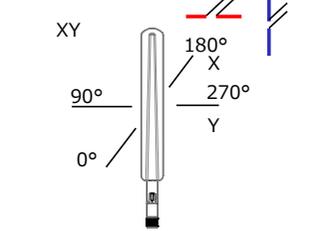
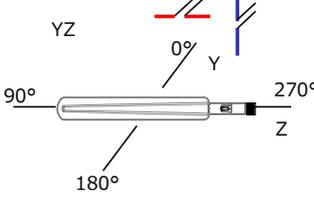
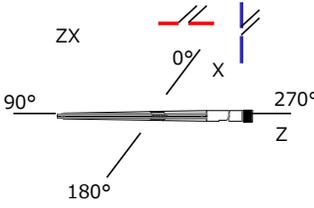


— 水平偏波 Horizontal Polarized Wave  
— 垂直偏波 Vertical Polarized Wave

MRG = 最大利得 Maximum Absolute Gain  
 PAG = 平均利得 Pattern Average Gain

# 4. 利得・指向性特性 Gain and Radiation Pattern Characteristics

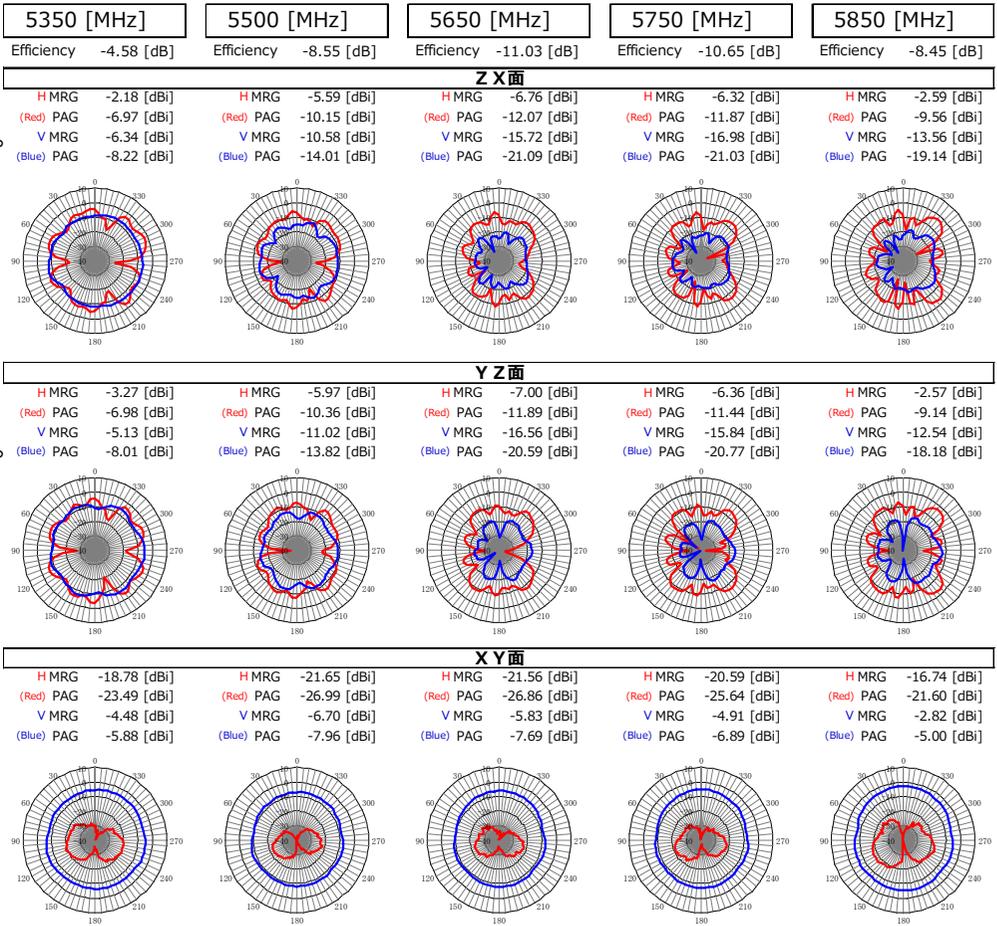
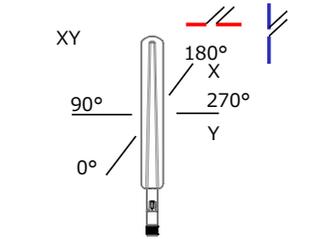
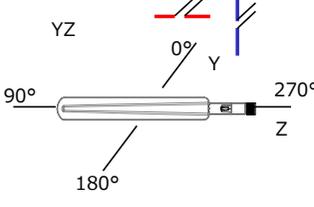
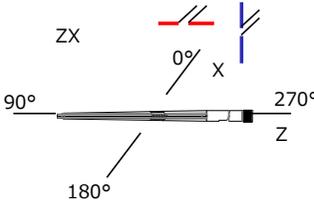
## 5GHz Band(Wi-Fi,etc.)



— 水平偏波 Horizontal Polarized Wave      MRG = 最大利得 Maximum Absolute Gain  
— 垂直偏波 Vertical Polarized Wave                      PAG = 平均利得 Pattern Average Gain

# 4. 利得・指向性特性 Gain and Radiation Pattern Characteristics

## 5GHz Band(Wi-Fi,etc.)



— 水平偏波 Horizontal Polarized Wave      MRG = 最大利得 Maximum Absolute Gain  
— 垂直偏波 Vertical Polarized Wave                      PAG = 平均利得 Pattern Average Gain

### 5.最大利得・放射効率 Maximum Absolute Gain and Efficiency

Frequency(MHz)	600	617	630	634.5	652	660	663	680.5	698	699	703	704	707.5	710	716
Maximum Absolute Gain(dBi)	-7.95	-5.59	-4.36	-4.42	-2.96	-2.18	-2.46	-1.35	-1.10	-1.09	-0.93	-0.91	-0.82	-0.83	-0.89
Efficiency(dB)	-12.23	-9.94	-7.60	-7.52	-5.58	-4.48	-5.02	-3.83	-3.76	-3.75	-3.65	-3.62	-3.62	-3.70	-3.77

Frequency(MHz)	725.5	729	734	737.5	740	746	748	751	756	758	763	768	777	780.5	782
Maximum Absolute Gain(dBi)	-0.65	-0.61	-0.55	-0.56	-0.63	-0.33	-0.32	-0.34	-0.48	-0.54	-0.71	-0.97	-1.09	-1.21	-1.26
Efficiency(dB)	-3.54	-3.51	-3.49	-3.54	-3.56	-3.29	-3.25	-3.28	-3.39	-3.42	-3.50	-3.59	-3.43	-3.48	-3.50

Frequency(MHz)	787	788	791	793	798	803	806	814	815	821	822.5	824	830	831.5	832
Maximum Absolute Gain(dBi)	-1.30	-1.28	-1.31	-1.38	-1.56	-1.72	-1.73	-1.88	-1.90	-2.03	-2.09	-2.14	-2.21	-2.18	-2.17
Efficiency(dB)	-3.50	-3.50	-3.54	-3.61	-3.68	-3.77	-3.82	-3.94	-3.95	-4.01	-4.03	-4.03	-3.91	-3.88	-3.88

Frequency(MHz)	836.5	837.5	845	847	849	859	860	862	865	867.5	868	869	875	876.5	880
Maximum Absolute Gain(dBi)	-2.15	-2.18	-2.48	-2.49	-2.51	-2.39	-2.36	-2.34	-2.44	-2.57	-2.61	-2.63	-2.47	-2.40	-2.47
Efficiency(dB)	-3.97	-4.01	-4.09	-4.07	-4.08	-3.98	-3.94	-3.93	-4.04	-4.19	-4.21	-4.25	-4.10	-4.03	-4.20

Frequency(MHz)	881.5	882.5	890	894	897.5	900	902	915	922	925	928	930	940	942.5	960
Maximum Absolute Gain(dBi)	-2.47	-2.48	-2.36	-2.39	-2.40	-1.93	-2.25	-1.68	-1.73	-1.90	-2.01	-2.03	-1.94	-1.94	-1.77
Efficiency(dB)	-4.21	-4.21	-4.09	-4.13	-4.16	-3.82	-4.04	-3.67	-3.81	-3.97	-4.06	-4.04	-3.74	-3.68	-3.26

Frequency(MHz)	1176.45	1227.6	1246	1278.75	1427.9	1437.9	1440	1447.9	1455.4	1462.9	1475.9	1485.9	1495.9	1503.4	1510.9
Maximum Absolute Gain(dBi)	-0.30	0.37	0.47	0.75	0.43	0.48	0.57	0.37	0.33	0.49	0.49	0.46	0.53	0.51	0.40
Efficiency(dB)	-1.88	-1.36	-1.37	-1.15	-1.32	-1.30	-1.35	-1.45	-1.53	-1.42	-1.38	-1.37	-1.24	-1.15	-1.25

Frequency(MHz)	1575.42	1602	1710	1732.5	1740	1745	1747.5	1749.9	1755	1767.4	1780	1784.9	1785	1805	1842.5
Maximum Absolute Gain(dBi)	0.20	-0.24	0.83	1.05	1.15	0.92	0.88	0.87	0.98	0.81	0.91	1.03	1.05	1.08	1.52
Efficiency(dB)	-1.61	-2.10	-1.73	-1.88	-1.60	-1.92	-1.94	-1.97	-2.08	-2.08	-2.05	-2.07	-2.07	-1.90	-1.87

### 5.最大利得・放射効率 Maximum Absolute Gain and Efficiency

Frequency(MHz)	1844.9	1850	1862.4	1879.9	1880	1882.5	1900	1910	1915	1920	1930	1950	1960	1962.5	1980
Maximum Absolute Gain(dBi)	1.55	1.54	1.73	1.73	1.72	1.75	1.95	1.97	1.99	2.03	2.14	2.34	2.39	2.32	2.53
Efficiency(dB)	-1.91	-1.85	-1.94	-1.62	-1.61	-1.55	-1.64	-1.55	-1.74	-1.76	-1.74	-1.51	-1.77	-1.77	-1.79

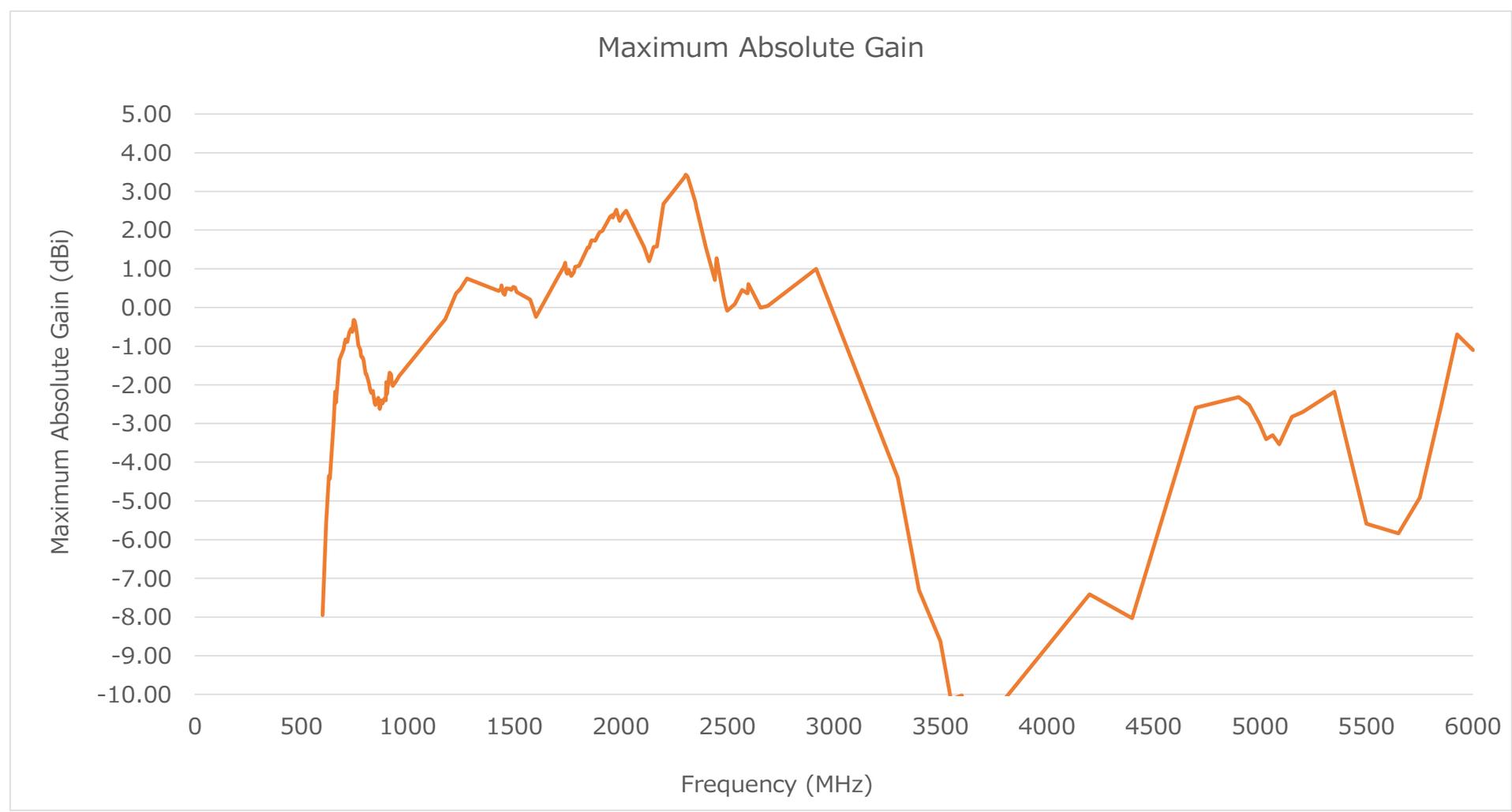
Frequency(MHz)	1990	1995	2010	2025	2110	2132.5	2140	2155	2170	2200	2300	2305	2310	2315	2350
Maximum Absolute Gain(dBi)	2.31	2.24	2.41	2.50	1.56	1.19	1.31	1.56	1.57	2.68	3.37	3.43	3.41	3.35	2.72
Efficiency(dB)	-1.70	-1.64	-1.47	-1.32	-2.24	-2.12	-2.07	-1.96	-2.12	-1.62	-1.09	-1.01	-1.01	-1.03	-1.32

Frequency(MHz)	2355	2360	2400	2442	2450	2483.5	2496	2500	2535	2570	2593	2595	2600	2620	2655
Maximum Absolute Gain(dBi)	2.57	2.47	1.53	0.71	1.27	0.24	-0.03	-0.09	0.09	0.45	0.37	0.37	0.60	0.38	-0.01
Efficiency(dB)	-1.37	-1.37	-1.67	-1.82	-1.55	-2.07	-2.26	-2.29	-1.94	-1.30	-1.28	-1.27	-1.07	-1.48	-1.70

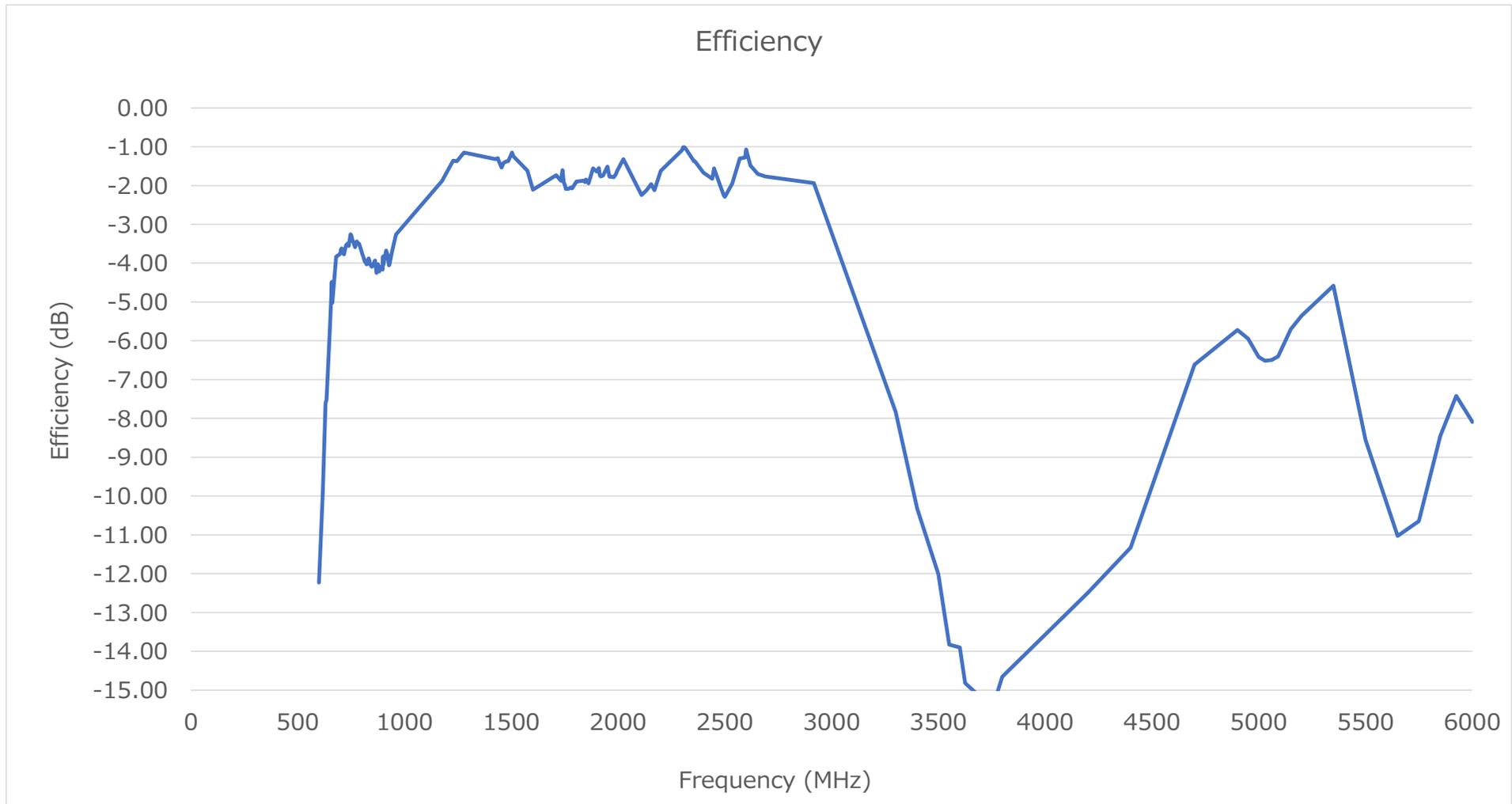
Frequency(MHz)	2690	2917.5	3300	3400	3500	3550	3600	3625	3700	3750	3800	4200	4400	4700	4900
Maximum Absolute Gain(dBi)	0.04	1.00	-4.40	-7.31	-8.63	-10.14	-10.03	-10.79	-11.23	-11.43	-10.13	-7.42	-8.03	-2.59	-2.31
Efficiency(dB)	-1.76	-1.94	-7.84	-10.32	-12.01	-13.83	-13.90	-14.82	-15.19	-15.51	-14.66	-12.49	-11.33	-6.61	-5.72

Frequency(MHz)	4950	5000	5030	5060.5	5091	5150	5200	5350	5500	5650	5750	5850	5925	6000
Maximum Absolute Gain(dBi)	-2.52	-3.02	-3.41	-3.30	-3.53	-2.83	-2.71	-2.18	-5.59	-5.83	-4.91	-2.57	-0.70	-1.10
Efficiency(dB)	-5.94	-6.42	-6.51	-6.49	-6.41	-5.71	-5.35	-4.58	-8.55	-11.03	-10.65	-8.45	-7.42	-8.09

## 6.最大利得 Maximum Absolute Gain



## 7.放射効率 Efficiency



## 8. 来歴 Revision History

日付 Date	変更前 Before Change	変更後 After Change	氏名 Name
2024/10/16	4.利得・指向性特性698～960[MHz]の誤記修正 Correction of errors in 4.Gain Radiation pattern 698～960[MHz]		Yanagi
2025/1/16	測定周波数変更 (Frequency Change)		Tanaka