

## Description of EPFD validation and results of examination

Downlink examination of frequency ranges 17.8 – 18.6 GHz, 19.7 – 20.2 GHz

Inter-satellite examination of frequency ranges 17.8 – 18.4 GHz

Uplink examination of frequency ranges 27.5 – 28.6 GHz and 29.5 – 30 GHz

## Input parameters

### Mask link data Configuration 1 and 2

Mask Id.	Direction	Minimum frequency, MHz	Maximum frequency, MHz	Linked orbit IDs / Satellite IDs	Configuration
1	↓	17800	18600	1 - 6 (sat IDs: All) 27 - 32 (sat IDs: All)	1 2
2	↓	17800	18600	1 - 6 (sat IDs: All) 27 - 32 (sat IDs: All)	1 2
3	↓	17800	18600	7 - 26 (sat IDs: All) 33 - 52 (sat IDs: All)	1 2
4	↓	17800	18600	7 - 26 (sat IDs: All) 33 - 52 (sat IDs: All)	1 2
5	↓	19700	20200	1 - 6 (sat IDs: All) 27 - 32 (sat IDs: All)	1 2
6	↓	19700	20200	1 - 6 (sat IDs: All) 27 - 32 (sat IDs: All)	1 2
7	↓	19700	20200	7 - 26 (sat IDs: All) 33 - 52 (sat IDs: All)	1 2
8	↓	19700	20200	7 - 26 (sat IDs: All) 33 - 52 (sat IDs: All)	1 2
9	↑	27500	28600	All	All
10	↑	29500	30000	All	All
11	↔	17800	18400	All	All

### Common SNS Data

#### Common

A.4.b.7.d.1 Exclusion zone type	A.4.b.7.d.1 Exclusion zone size, degrees
Y - topocentric angle (earth based)	4.5

#### Orbits

Apogee/Perigee/Inclination	A.4.b.6.d Uses station keeping	A.4.b.6.e Uses specific precession
1000/1000/99.5 1350/1350/50	No keeping	Default

#### Uplink

A.4.b.7.b Earth station density (1/km <sup>2</sup> )	A.4.b.7.c Average distance (km)	A.4.b.7.a number of satellites receiving simultaneously
2.5E-07	2000	1

#### Downlink

A.4.b.6.a Number of satellites transmitting to any latitude within corresponding range		
From latitude	To latitude	Number
-90	90	30

#### Group table

Beam(s)	Direction	Minimum frequency, MHz	Maximum frequency, MHz	A.4.b.7.cbis Minimum elevation angle
KUI1, KUI2, KUP1, KUP2	R	27500	30000	10
KDI1, KDI2, KDP1, KDP2	E	17800	20200	10

## Results Configuration 1

<i>B1A</i> <i>Beam designation</i>	<i>B2</i> <i>Emi-Rcp</i>	<i>BR7a</i> <i>Group id./</i> <i>Target Group id.</i>	<i>GHz</i>	<i>Orbital planes id. no.</i>	<i>Mask ID</i>	<i>Article 22 Limit</i>	<i>Result</i>	<i>Article 22 Examination</i>
KUI1	R	319841875 / 119740373 319841876 / 119740374 319841877 / 119740375 319841878 / 119740376	27.5-28.6	7 - 26	9	TABLE 22-2	Pass	Favorable
KUI1	R	319841879 / 119740453 319841880 / 119740454 319841881 / 119740455 319841882 / 119740456	29.5-30	7 - 26	10	TABLE 22-2	Pass	Favorable
KUP1	R	319841891 / 119740397 319841892 / 119740398 319841893 / 119740399 319841894 / 119740400	27.5-28.6	1 - 6	9	TABLE 22-2	Pass	Favorable
KUP1	R	319841895 / 119740465 319841896 / 119740466 319841897 / 119740467 319841898 / 119740468	29.5-30	1 - 6	10	TABLE 22-2	Pass	Favorable
KDI1	E	319841827 / 119740381 319841828 / 119740382 319841829 / 119740383 319841830 / 119740384	17.8-18.1	7 - 26	1 - 4, 11	TABLE 22-1B TABLE 22-3	Pass Pass	Favorable
KDI1	E	319841831 / 119740437 319841832 / 119740438 319841833 / 119740439 319841834 / 119740440	19.7-20.2	7 - 26	5 - 8	TABLE 22-1C	Pass	Favorable
KDI1	E	319841835 / 119740457 319841836 / 119740458 319841837 / 119740459 319841838 / 119740460	18.1-18.6	7 - 26	1 - 4, 11	TABLE 22-1B TABLE 22-3	Pass Pass	Favorable Favorable
KDP1	E	319841851 / 119740421 319841852 / 119740422 319841853 / 119740423 319841854 / 119740424	17.8-18.1	1 - 6	1 - 4, 11	TABLE 22-1B TABLE 22-3	Pass Pass	Favorable Favorable
KDP1	E	319841855 / 119740445 319841856 / 119740446 319841857 / 119740447 319841858 / 119740448	19.7-20.2	1 - 6	5 - 8	TABLE 22-1C	Pass	Favorable
KDP1	E	319841859 / 119740477 319841860 / 119740478 319841861 / 119740479 319841862 / 119740480	18.1-18.6	1 - 6	1 - 4, 11	TABLE 22-1B TABLE 22-3	Pass Pass	Favorable Favorable

## Results Configuration 2

<i>B1A</i> <i>Beam designation</i>	<i>B2</i> <i>Emi-Rcp</i>	<i>BR7a</i> <i>Group id./</i> <i>Target Group id.</i>	<i>GHz</i>	<i>Orbital planes id. no.</i>	<i>Mask ID</i>	<i>Article 22 Limit</i>	<i>Result</i>	<i>Article 22 Examination</i>
KUI2	R	319841883 / 119740389 319841884 / 119740390 319841885 / 119740391 319841886 / 119740392	27.5-28.6	33 - 52	9	TABLE 22-2	Pass	Favorable
KUI2	R	319841887 / 119740461 319841888 / 119740462 319841889 / 119740463 319841890 / 119740464	29.5-30	33 - 52	10	TABLE 22-2	Pass	Favorable
KUP2	R	319841899 / 119740405 319841900 / 119740406 319841901 / 119740407 319841902 / 119740408	27.5-28.6	27	9	TABLE 22-2	Pass	Favorable
KUP2	R	319841903 / 119740469 319841904 / 119740470 319841905 / 119740471 319841906 / 119740472	29.5-30	27	10	TABLE 22-2	Pass	Favorable
KDI2	E	319841839 / 119740413 319841840 / 119740414	17.8-18.1	33 - 52	1 - 4, 11	TABLE 22-1B TABLE 22-3	Pass Pass	Favorable Favorable

		319841841 / 119740415 319841842 / 119740416						
KDI2	E	319841843 / 119740441 319841844 / 119740442 319841845 / 119740443 319841846 / 119740444	19.7-20.2	33 - 52	5 - 8	TABLE 22-1C	Pass	Favorable
KDI2	E	319841847 / 119740473 319841848 / 119740474 319841849 / 119740475 319841850 / 119740476	18.1-18.6	33 - 52	1 - 4, 11	TABLE 22-1B TABLE 22-3	Pass Pass	Favorable Favorable
KDP2	E	319841863 / 119740429 319841864 / 119740430 319841865 / 119740431 319841866 / 119740432	17.8-18.1	27	1 - 4, 11	TABLE 22-1B TABLE 22-3	Pass Pass	Favorable Favorable
KDP2	E	319841867 / 119740449 319841868 / 119740450 319841869 / 119740451 319841870 / 119740452	19.7-20.2	27	5 - 8	TABLE 22-1C	Pass	Favorable
KDP2	E	319841871 / 119740481 319841872 / 119740482 319841873 / 119740483 319841874 / 119740484	18.1-18.6	27	1 - 4, 11	TABLE 22-1B TABLE 22-3	Pass Pass	Favorable Favorable

Notes:

1. Findings are promulgated as favorable when all applicable limits in Article 22 are met for given group of frequency assignments in all applicable scenarios.
2. The Result column can be either Pass or Fail (see Rec. ITU-R S.1503-2). N/A (Non Applicable) refers to the case when an applicable Article 22 limit is not examined in the current scenario.
3. Qualified Favorable is established due to continuous application of Resolution 85 (WRC-03) on request by the notifying administration.