

## Description of EPFD validation and results of examination

### Input parameters

#### Mask link data

Mask Id.	Direction	Minimum frequency, MHz	Maximum frequency, MHz	Linked orbit IDs / Satellite IDs
5	↓	17800	18600	All
10	↑	27500	28600	All
12	↔	17800	18400	All
4	↓	19700	20200	All
9	↑	29500	30000	All
1	↓	10700	12750	All
7	↑	12750	14500	All
11	↔	10700	12750	All

#### Frequency, mode of operation

Frequency, GHz	Direction	Mode of operation
10.7-12.75	↓	User
17.8 -18.6	↓	Gateway
19.7-20.2	↓	User
10.7-12.75	↔	User
17.8-18.4	↔	Gateway
12.75-14.5	↑	User
27.5-28.6	↑	Gateway
29.5-30	↑	User

#### Common SNS Data Ka band, Gateway

##### Common

Band, mode of operation	A.4.b.7.d.1 Exclusion zone type	A.4.b.7.d.1 Exclusion zone size, degrees
all	Y - topocentric angle (earth based)	4

##### Orbits

Band, mode of operation	Apogee/Perigee/Inclination	A.4.b.6.d Uses station keeping	A.4.b.6.e Uses specific precession
all	1/1/90	No keeping	Default

##### Uplink

Band, mode of operation	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
Ka, Gateway	2,5E-07	200	10
Ka, user	1,11E-05	300	1
Ku, user	4E-06	500	1

##### Downlink

Band, mode of operation	A.4.b.6.a Number of satellites transmitting to any latitude within corresponding range		
	From latitude	To latitude	Number
Ka, Gateway	-90	90	10
Ka, user	-90	90	1
Ku, user	-90	90	1

##### Group table

Beam(s)	Direction	Minimum frequency, MHz	Maximum frequency, MHz	A.4.b.7.cbis Minimum elevation angle
UL1KA, UL2KA, UL3KA	R	27500	30000	26
UL1, UL2, UL3	R	12750	14500	26
DL1KA, DL2KA, DL3KA	E	17800	20200	26
DL1, DL2, DL3	E	10700	12750	26

### Results

<i>B1A</i> <i>Beam</i> <i>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</i> <i>planes id.</i> <i>no.</i>	<i>Mask ID</i>	<i>Article 22 Limit</i>	<i>Result</i>	<i>Article 22</i> <i>Examination</i>
UL1	R	320766803 / 120754999 320766804 / 120755000 320766805 / 120755001 320766806 / 120755002 320766807 / 120755003	12,75- 13,25	1 - 40	7	TABLE 22-2	Pass	Favorable
UL1	R	320766808 / 120755170 320766809 / 120755171 320766810 / 120755172 320766811 / 120755173 320766812 / 120755174	14-14,5	1 - 40	7	TABLE 22-2	Pass	Favorable
UL1KA	R	320766813 / 120755110 320766814 / 120755111 320766815 / 120755112 320766816 / 120755113 320766817 / 120755114	27,5-28,6	1 - 40	10	TABLE 22-2	Pass	Favorable
UL1KA	R	320766818 / 120755125 320766819 / 120755126 320766820 / 120755127 320766821 / 120755128 320766822 / 120755129	29,5-30	1 - 40	9	TABLE 22-2	Pass	Favorable
UL2	R	320766823 / 120755006 320766824 / 120755007 320766825 / 120755008 320766826 / 120755009 320766827 / 120755010	12,75- 13,25	1 - 40	7	TABLE 22-2	Pass	Favorable
UL2	R	320766828 / 120755175 320766829 / 120755176 320766830 / 120755177 320766831 / 120755178 320766832 / 120755179	14-14,5	1 - 40	7	TABLE 22-2	Pass	Favorable
UL2KA	R	320766833 / 120755130 320766834 / 120755131 320766835 / 120755132 320766836 / 120755133 320766837 / 120755134	27,5-28,6	1 - 40	10	TABLE 22-2	Pass	Favorable
UL2KA	R	320766838 / 120755145 320766839 / 120755146 320766840 / 120755147 320766841 / 120755148 320766842 / 120755149	29,5-30	1 - 40	9	TABLE 22-2	Pass	Favorable
UL3	R	320766843 / 120755013 320766844 / 120755014 320766845 / 120755015 320766846 / 120755016 320766847 / 120755017	12,75- 13,25	1 - 40	7	TABLE 22-2	Pass	Favorable
UL3	R	320766848 / 120755180 320766849 / 120755181 320766850 / 120755182 320766851 / 120755183 320766852 / 120755184	14-14,5	1 - 40	7	TABLE 22-2	Pass	Favorable
UL3KA	R	320766853 / 120755150 320766854 / 120755151 320766855 / 120755152 320766856 / 120755153 320766857 / 120755154	27,5-28,6	1 - 40	10	TABLE 22-2	Pass	Favorable
UL3KA	R	320766858 / 120755165 320766859 / 120755166 320766860 / 120755167 320766861 / 120755168 320766862 / 120755169	29,5-30	1 - 40	9	TABLE 22-2	Pass	Favorable
DL1	E	320766713 / 120754939 320766714 / 120754940 320766715 / 120754941 320766716 / 120754942 320766717 / 120754943	10,7-11,7	1 - 40	1, 11	RR 22.5C4 TABLE 22-1A TABLE 22-3	Pass Pass Pass	Favorable
DL1	E	320766718 / 120754944 320766719 / 120754945 320766720 / 120754946 320766721 / 120754947	11,7-12,75	1 - 40	1, 11	RR 22.5C4 RR 22.5C8 TABLE 22-1A	Pass Pass Pass	Favorable

		320766722 / 120754948 320766723 / 120754949 320766724 / 120754950 320766725 / 120754951 320766726 / 120754952 320766727 / 120754953				TABLE 22-1D TABLE 22-3	Pass Pass	
DL1	E	320766728 / 120754954 320766729 / 120754955 320766730 / 120754956 320766731 / 120754957 320766732 / 120754958	11,7-12,7	1 - 40	1, 11	RR 22.5C4 RR 22.5C8 TABLE 22-1A TABLE 22-1D TABLE 22-3	Pass Pass Pass Pass Pass	Favorable
DL1KA	E	320766733 / 120755025 320766734 / 120755026 320766735 / 120755027 320766736 / 120755028 320766737 / 120755029	17,8-18,6	1 - 40	5, 12	TABLE 22-1B TABLE 22-3	Pass Pass	Favorable
DL1KA	E	320766738 / 120755040 320766739 / 120755041 320766740 / 120755042 320766741 / 120755043 320766742 / 120755044	19,7-20,2	1 - 40	4	TABLE 22-1C	Pass	Favorable
DL2	E	320766743 / 120754959 320766744 / 120754960 320766745 / 120754961 320766746 / 120754962 320766747 / 120754963	10,7-11,7	1 - 40	1, 11	RR 22.5C4 TABLE 22-1A TABLE 22-3	Pass Pass Pass	Favorable
DL2	E	320766748 / 120754964 320766749 / 120754965 320766750 / 120754966 320766751 / 120754967 320766752 / 120754968 320766753 / 120754969 320766754 / 120754970 320766755 / 120754971 320766756 / 120754972 320766757 / 120754973	11,7-12,75	1 - 40	1, 11	RR 22.5C4 RR 22.5C8 TABLE 22-1A TABLE 22-1D TABLE 22-3	Pass Pass Pass Pass Pass	Favorable
DL2	E	320766758 / 120754974 320766759 / 120754975 320766760 / 120754976 320766761 / 120754977 320766762 / 120754978	11,7-12,7	1 - 40	1, 11	RR 22.5C4 RR 22.5C8 TABLE 22-1A TABLE 22-1D TABLE 22-3	Pass Pass Pass Pass Pass	Favorable
DL2KA	E	320766763 / 120755055 320766764 / 120755056 320766765 / 120755057 320766766 / 120755058 320766767 / 120755059	17,8-18,6	1 - 40	5, 12	TABLE 22-1B TABLE 22-3	Pass Pass	Favorable
DL2KA	E	320766768 / 120755070 320766769 / 120755071 320766770 / 120755072 320766771 / 120755073 320766772 / 120755074	19,7-20,2	1 - 40	4	TABLE 22-1C	Pass	Favorable
DL3	E	320766773 / 120754979 320766774 / 120754980 320766775 / 120754981 320766776 / 120754982 320766777 / 120754983	10,7-11,7	1 - 40	1, 11	RR 22.5C4 TABLE 22-1A TABLE 22-3	Pass Pass Pass	Favorable
DL3	E	320766778 / 120754984 320766779 / 120754985 320766780 / 120754986 320766781 / 120754987 320766782 / 120754988 320766783 / 120754989 320766784 / 120754990 320766785 / 120754991 320766786 / 120754992 320766787 / 120754993	11,7-12,75	1 - 40	1, 11	RR 22.5C4 RR 22.5C8 TABLE 22-1A TABLE 22-1D TABLE 22-3	Pass Pass Pass Pass Pass	Favorable
DL3	E	320766788 / 120754994 320766789 / 120754995 320766790 / 120754996 320766791 / 120754997 320766792 / 120754998	11,7-12,7	1 - 40	1, 11	RR 22.5C4 RR 22.5C8 TABLE 22-1A TABLE 22-1D TABLE 22-3	Pass Pass Pass Pass Pass	Favorable
DL3KA	E	320766793 / 120755085 320766794 / 120755086	17,8-18,6	1 - 40	5, 12	TABLE 22-1B TABLE 22-3	Pass Pass	Favorable

		320766795 / 120755087 320766796 / 120755088 320766797 / 120755089						
DL3KA	E	320766798 / 120755100 320766799 / 120755101 320766800 / 120755102 320766801 / 120755103 320766802 / 120755104	19,7-20,2	1 - 40	4	TABLE 22-1C	Pass	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.