RF Exposure / MPE Calculation

No.	:	13722221S-B-R1
Applicant	:	ALPS ALPINE CO., LTD.
Type of Equipment	:	Display Audio
Model No.	:	Music Halo
FCC ID	:	A269ZUA164

ALPS ALPINE CO., LTD. declares that Model: Music Halo complies with FCC radiation exposure requirement specified in the FCC Rule 2.1091 (for mobile).

RF Exposure Calculations:

The following information provides the minimum separation distance for the highest gain antenna provided with the "Music Halo" as calculated from (B) Limits for General Population / Uncontrolled Exposure of TABLE 1- LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE) of §1.1310 Radiofrequency radiation exposure limits.

This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 1mW/cm^2 uncontrolled exposure limit. The Friis formula used was:

$$S = \frac{P \times G}{4 \times \pi \times r^2}$$

Where

P = 1.30 mW (Maximum average output power)

☑ Time average was used for the above value in consideration of 6-minutes time-averaging

☐ Burst power average was used for the above value in consideration of worst condition.

G = 0.501 Numerical Antenna gain; equal to -3 dBi

r = 20 cm (Separation distance)

Power Density Result S = **0.00013 mW/cm^2**

Even taking into account the tolerance, this device can be satisfied with the limits.

UL Japan, Inc.
Shonan EMC Lab.
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN
Telephone : +81 463 50 6400
Facsimile : +81 463 50 6401