



OMARA, the solution

Perfect intelligibility in extreme noise

Fighter planes and helicopters are places where very high decibel levels can be experienced. Unfortunately, pilots are not fully protected against the danger and harmful effects of these high volumes with the possible result of unrecoverable damage to the human ear.

More: the pilot's intrinsic performance is lowered due to the elevated environment stress.

AMPLIFON SWITZERLAND COMMITTED ITSELF TO DESIGN A CUSTOMIZED DISRUPTIVE SOLUTION FOR THE SWISS AIR FORCE.

- **OMARA** is a customized, patent-pending system of auricles out of silicone allowing a clear perception of the radio messages, a good protection against the internal noise of the cockpits of military aircrafts and helicopters. A filter acoustic valve offers an excellent perception of alarms and a good barometric transparency.
- **OMARA** is composed of ultra high-quality components (cables, connector, receivers, filters, auricles) which were carefully selected to ensure the maximum comfort and security for pilots.
- **OMARA** allows to dramatically increase the performance of pilots during their flights, and ensures a sustainable hearing capability.

THE PRODUCT

- Multifunctional integration
 - Total integration of filter and receiver
 - Barometric equalization: altitude effect compensation
- Flatness of ear mold
 - Customized to user, maximum comfort
 - Consistent design with helmet
- Material choice
 - Allows self-adaptation to anatomic conformation of user
- Innovative combination
 - In-ear concept
 - Electronics miniaturization
 - High-performance materials

THE RESULT

- Security
 - Clear Alarms
 - Redundancy with loudspeakers
 - Clear perception of all messages
- Ergonomics/comfort
 - Lightweight, easy to use
 - Easy to wear
- Performance
 - Reduction of user's stress
 - Allows user to focus on the essential
- Sustainability
 - Long-term protection of user's ear and hearing capability



OMARA is composed of high-quality elements cables, connector, receivers and filters:

COMPONENTS	SPECIFICATION	VALUE	UNIT
Cable	<ul style="list-style-type: none"> • 50 Ω radiofrequency coaxial cable • Center conductor • Dielectric: cellular PE • Outer conductor • Halogen-free crosslinked jacket • Minimum static bending radius • Minimum dynamic bending radius • Weight 	0.305	mm
		max. 1.35	mm
		max. 1.84	mm
		5	mm
		20	mm
		6.5	g/m
		Connector	<ul style="list-style-type: none"> • Coaxial cable connector SMB • Impedance • Weight • Minimum Return loss
Receiver	<ul style="list-style-type: none"> • High efficiency and low distortion • Maximum power output • Nominal sensitivity at 500 Hz • Shock resistance (Typical) <ul style="list-style-type: none"> – Height – Acceleration • Sensitivity range 	128 107	dB SPL dB SPL
		196	cm
		20'000	g
		±3	dB
		Filter	<ul style="list-style-type: none"> • Selective protection against noise • Attenuation (EN 352-2 & EN 24869-1) <ul style="list-style-type: none"> • 63 Hz • 125 Hz • 500 Hz • 8000 Hz
Earplug	<ul style="list-style-type: none"> • Customized to user • Material 	(Amplifon-approved) HQ silicone basis	(Amplifon-approved) HQ silicone basis
Complete system	<ul style="list-style-type: none"> • Operating temperature range • Storage temperature range • Traction resistance (reference samples) 	-17, +60 -20, +60 13	° C ° C N

