

THE NEW 47AC INFRASOUND MICROPHONE SET FROM G.R.A.S.

– The answer to the challenges of infrasound measurements

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The increased awareness about infrasound, and the discomfort that noise and low frequencies can bring along, has given rise to new measurement challenges from the aerospace industry to monitoring environmental noise. These challenges require the possibility to measure at extremely low frequencies.

G.R.A.S. are pioneers, when it comes to infrasound measurements. After having worked with a number of partners we have now developed a solution for the market and are introducing the 47AC microphone set.

The G.R.A.S. 47AC 1/2" Infra-Sound Microphone Set is a CCP (Constant Current Power) free-field microphone set, designed specifically for the particular demands of infrasound testing, allowing to measure frequencies as low as 0.09 Hz. The 47AC is the only CCP infrasound microphone on the market with this capability.

Helping JAXA – The Japanese Space Exploration Agency

Prior to the launch of the 47AC we have worked extensively with the Japanese Space Exploration Agency (JAXA) to develop testing equipment that enables realistic measurements of sonic booms generated by sonic airplanes.

As low-flying sonic airplanes over land become increasingly viable, reducing the impact of the sonic boom generated by supersonic aircraft is vital.

Central to this is the accurate measuring of the effects of the sonic boom. Flight-testing is extremely costly, and to capture sonic boom pressure time histories in detail, infrasound test equipment has to be accurate, flexible and reliable – every time.

From a customized solution to a standard product

We now present the 47AC 1/2" CCP Infra-Sound Microphone Set as a standard product amongst the G.R.A.S. portfolio, as the result of working with JAXA to find a customized solution for the project "Drop test for Simplified Evaluation of Non-symmetrically Distributed sonic boom (D-SEND),

According to G.R.A.S. Director and Owner Per Rasmussen the partnership with JAXA has resulted in a thorough knowledge about the measurement challenges within infrasound: *"Building upon these experiences we have now developed a standard product with the unique feature to measure at extremely low frequencies – as low as 0.09 Hz."*

The 47AC can be applied to infrasound measurements within different industries depending on your specific application from measurement of wind turbine noise to research at universities.

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At G.R.A.S. we are dedicated to help our customers find the best possible solutions. With more than 20 years of experience of testing microphones and related acoustic equipment we are ready to guide you and together we will find the best possible solution for your demand.

Why you should choose the 47AC

- The only infrasound microphone with a CCP solution
- The 47AC set is assembled and calibrated as a complete unit
- Frequency range from 0.09 Hz to 20 kHz
- Dynamic range 20 dB(A) to 148 dB
- Sensitivity 8 mV/Pa

For further information please contact us at gras@gras.dk