

## 67. Longhorn Experiment with Camouflage Mesh

V1.0

UFO Doctor, June 3rd, 2013

### 1. Test Setup

	<p>Fig.1. Test Setup</p> <ol style="list-style-type: none"> <li>1: Device under test</li> <li>2: Rotating Mama</li> <li>3: Fan for air turbulence (Shock wind at middle of the tests, after 5 sec)</li> <li>4: Trigger delay device</li> <li>5: Scope</li> </ol> <p>Mama Rotation at <math>D=1m</math>,  <math>R=0.4m</math>,          Receiving Angle <math>\pm 24</math> Deg</p> <p>Ear distance 30mm</p>
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### 2. Test Subjects (see drawing)

Kobiton Mic with Longhorn Type 6, with inner tube D2x8 between Mic and Horn.  
 Horn: D12x17mm, throat 2mm, with air chamber, see drawing

<p>Fig. 2a: Mic free</p>	<p>Fig. 2b: Mic with horn</p>	<p>Fig. 2c: With open shield</p>	<p>Fig. 2d: With 3D mesh</p>

### 3. Scope Data

Top: BP left, 0.1V/Div,  
 Middle: BP right, 0.1V/Div,  
 Below: Analog PLL Out, 2V/Div,  
 Timing: Scope 0.5msec/Div, Trigger delay 2.8 msec  
 Distance: 1.5m, straight forward

<p>Fig. 3a: Mic free</p>	<p>Fig. 3b: Mic with horn</p>	<p>Fig. 3c: With open shield</p>	<p>Fig. 3d: With 3D mesh</p>

### Discussion 1:

The open Mic shoes high amplitude, the Mic with exponential horns about -6dB

#### 4. HyperTerminal Data

- Mama Rotation D=1m, R=0.4m, Angle=24 Deg
- Shock wind by 12V ventilator, powered by 7.4V in the middle of the test
- Dist: Distance to Mama Duck, unit's cm
- dtm: Time difference between left to right ear, unit's usec

	<p>Fig. 4a: Mic free</p> <p>Poor direction data!</p> <p>Strong shock wind effect?</p>
	<p>Fig. 4b: Mic with horn</p> <p>Good direction data</p> <p>No shock wind effect</p>
	<p>Fig. 4c: With open shield</p> <p>Less good direction data</p> <p>Little shock wind effect?</p>
	<p>Fig. 4c: With shield and mesh</p> <p>Poor direction data</p> <p>Poor data at left side, horizontal receiving angle suboptimal</p> <p>Little Shock wind effect</p>

#### Discussion 2

- The free Mics show poor directional data!
- The exponential horns show much better data
- The camouflage mesh decreases the receiving angle

