Electromagnetic wave experiment



- 1. Microwave basic introduce.
- 2. Relative to reflection measure of microwave and angle.
- 3. Microwave wavelength frequency
- 4. Refraction of microwave
- 5. Polarization of microwave
- 6. Slit diffraction interference.

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|---------------------|--------------------|----------|---|--|--|
| Item | Name | Quantity | Describe | | |
| 1. | Microwave emitter | 1 set | Operating frequency: 11GHz. | | |
| | | | Nominal power: \geq 10mw. | | |
| | | | Built-in single: 1kHz、ON~OFF、 music. | | |
| | | | External single: \geq 1V. | | |
| | | | Energy consumption: \leq 5w. | | |
| | | | Power supply : DC6V/DC12V subject to the actual | | |
| | | | sample. | | |
| 2. | Microwave receiver | 1 set | Amplifier gain $\therefore \ge$ 50dB. | | |
| | | | Power supply:DC6V /dry battery number four *3 | | |
| | | | subject to the actual sample. | | |
| | | | minimal measurement range : 50cm | | |

| | | | Energy consumption $\stackrel{:}{\cdot} \leq$ 5w |
|----|----------------------|--------|--|
| | | | attached 3.5 sound source cable transfer to crocodile |
| | | | clip. |
| 3. | slider track with | 1 set | One set of angle measurement tray |
| | angle measurement | | Two pieces of aluminum arm (60cm) |
| | ruler | | |
| 4. | Standing wave | 1 set | 1. magnetic signal receiver antenna |
| | receiver and base | | 2. n shape slide base |
| | | | 3. Attached 3.5mm signal cable |
| 5. | slit rack | 1piece | L shape of metal rack attached magnetic in the back. |
| 6. | Magnetic accessory | 1 set | Metal rack can be placed on angle measurement tray. |
| | base | | |
| 7. | Reflection board set | 1 set | metal reflection board *1, half-reflection board *1, |
| | | | polarization board*1. |
| 8. | Diffraction set | 2 sets | two pieces of different width of metal diffraction board |
| 9. | DC power supply | 2 sets | output DC6V/1A with plug 5.5-2.5mm. |
| 10 | Prism set | 1 set | 1. Imitated prism *1. |
| | | | 2. One pack of polystyrene particles. |
| | | | 3. Loading part* 1 |
| 11 | Multimeter | 1 set | |
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