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Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)

Submission Title: [VLC Application: Information Broadcast]

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Abstract: [VLC Application for Information Broadcast discussed in VLCC Japan.]

Purpose: [Contribution to IEEE 802.15 TG7]

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VLC Application: Information Broadcast

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Visible Light Portable Terminal WG:

Mission & scope



- Architecture
- User requirements and scenarios
- Standardization
- Integration and Demonstration

■ VLC Application (IrDA extension)

infrared

■ infrared Speed Spec



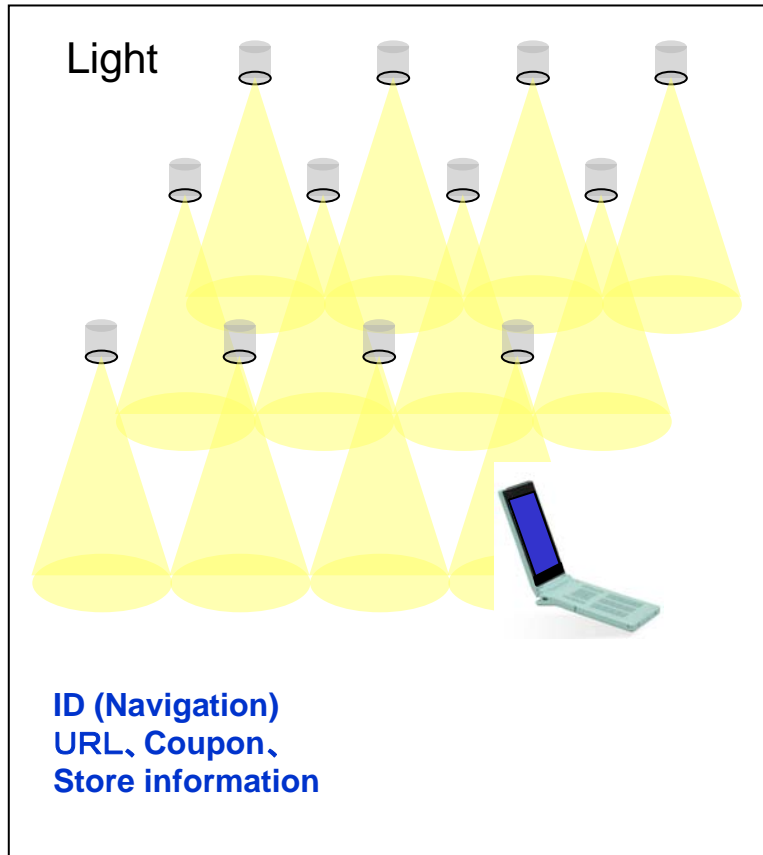
SIR	2.4kbps, 9.6kbps, 19.2kbps, 38.4k, 57.6k, 115.2kbps
MIR	0.576Mbps, 1.152Mbps
FIR	4Mbps
VFIR	16Mbps
UFIR	UFIR

■ VLC Application

○ Low rate Application (~9.6Kbps)

○ High rate Application(4Mbps ~)

■ Low rate Application Image (Infrastructure to Mobile)



○ Speed: ($\sim 9.6\text{Kbps}$)

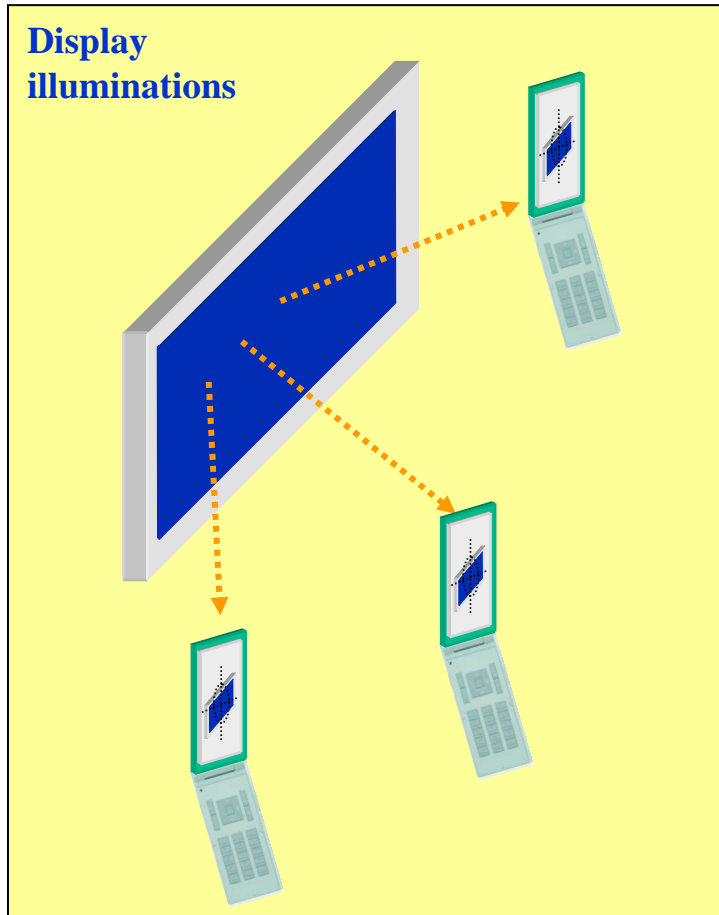
Feature:

- Automatically receive data
- Point/Place depend data
- 3G Network Collaboration

Spec:

- Speed: $9.6\text{kbps} \sim 300\text{bps}$
- Contents: ID, URL, etc
- Distance: Short range(m)
- Direction: uni-directional

■ High rate Application Image (Display to Mobile)



○ Speed: (4Mbps ~)

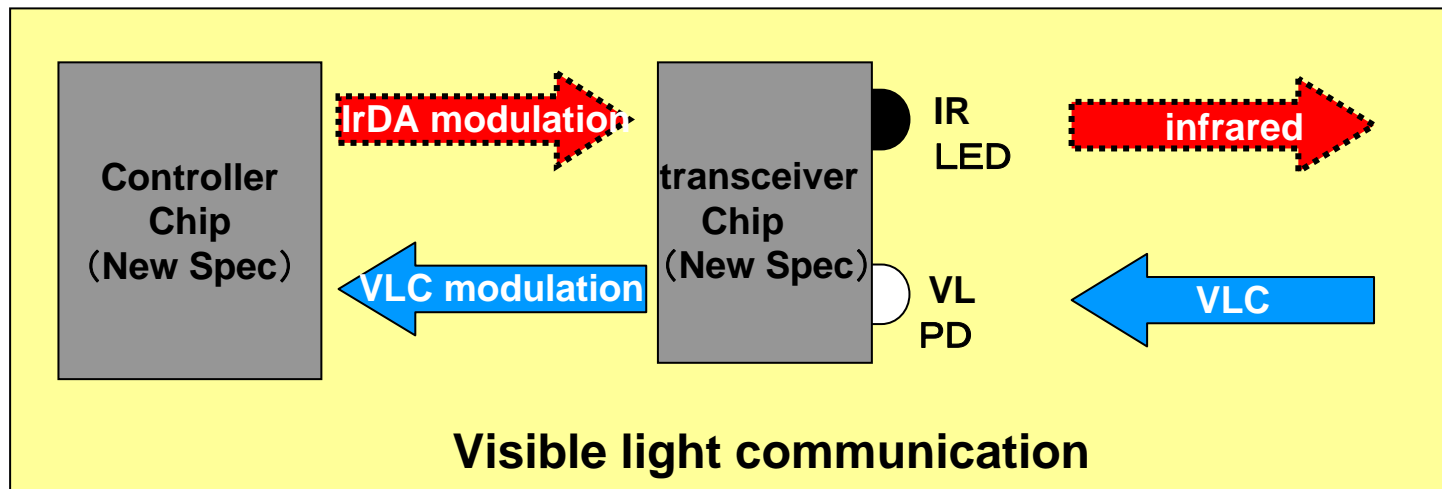
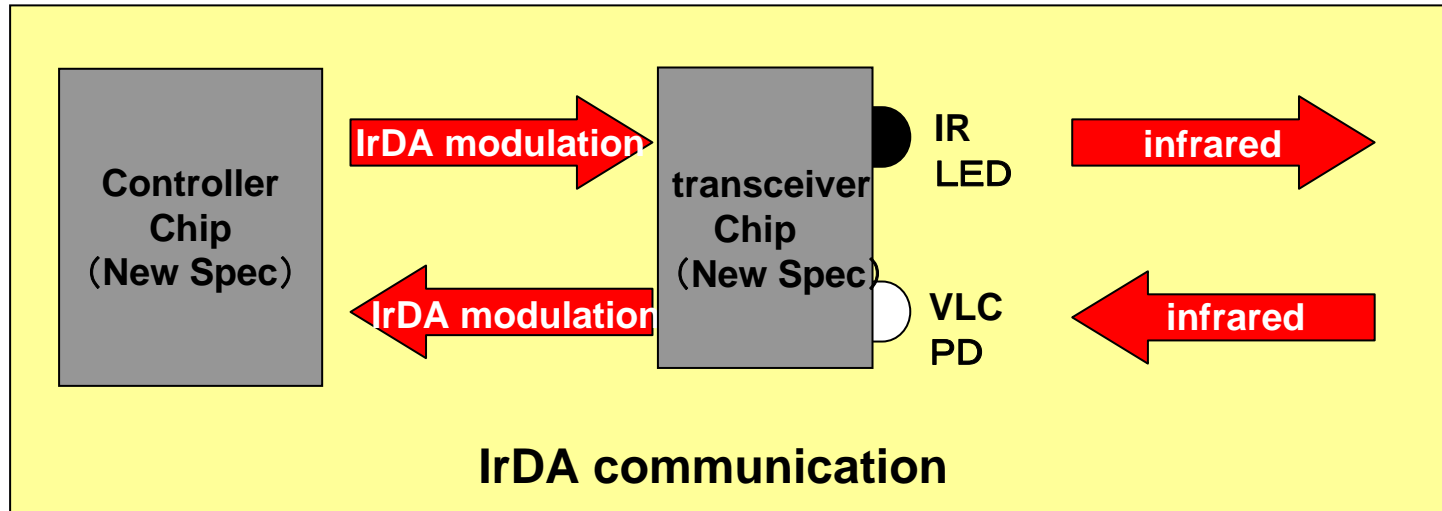
Feature:

- Pin point data receive
- Multicast data send
- Mega order data send

Spec:

- Speed: 576Kbps ~ 64Mbps
- Contents: Movie, Sound, Data
- Distance: Middle range (3m ~)
- Direction: uni-directional

■ IrDA/VLC Interoperability



■ Application development requirements

- 1) Request for Application
- 2) Device authentication
- 3) Send data

- 4) Data Receive Notify
 - 5) Kick Application (Browser)
 - 6) Sense status Request
- status:
off/waiting/receiving/sending

