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(54) MULTIPLE USE REMINDER PATCH

(57) An electric communication unit in the form of an adhesive patch provided to be placed onto a person's skin, wherein the electric communication unit comprises a tactile signal generator (6) provided for generating tactile signals at certain points of time and for transmitting the tactile signals to the person's skin when placed thereon. The patch comprises a first patch part (1) with a closed housing for housing the tactile signal generator and a second patch part (2) with a recess (3) for receiving the first patch part (1), wherein the first and second patch part (1, 2) are provided to be releasably connected to each other. The first patch part comprises a first connecting member (10) for releasably connecting to a corresponding second connecting member (11) on a side (13) of the second patch part provided to contact the skin. The second patch part (2) further comprises on the side provided to contact the skin (13) a skin connecting area (12) at least part of which is coated with at least one adhesive for adhering the second patch part (2) to the skin.

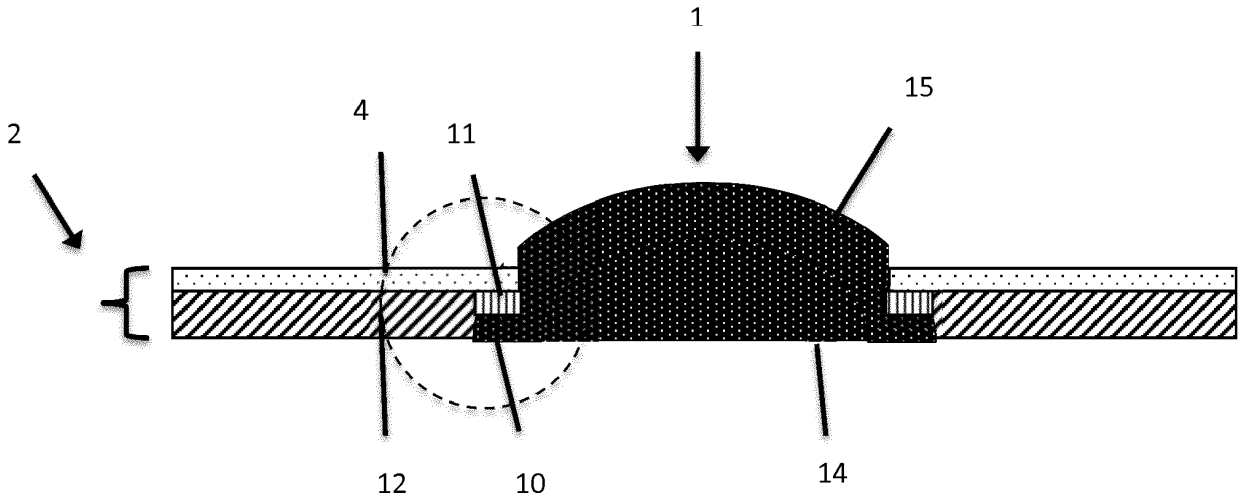


Figure 1

EP 3 287 997 A1

Description

[0001] The present invention relates to an electric communication unit in the form of an adhesive patch provided to be placed onto a person's skin, wherein the electric communication unit comprises a tactile signal generator provided for generating tactile signals at certain points of time and for transmitting the tactile signals to the person's skin when placed thereon, according to the preamble of the first claim.

[0002] Poor adherence and nonadherence to medication by patients has been recognised as an important health issue, it is a key factor that is associated with the effectiveness of pharmacological therapies, particularly in the case of chronic conditions such as diabetes, heart disease, respiratory disease and cancer. It is generally believed that poor or non-adherence to medication is directly related to poor clinical outcomes, high health care costs and lost quality of life. The cost of medication nonadherence has been estimated to mount up to hundreds of billions annually, including costs from hospitalization, nursing home admissions and premature deaths, which could have been avoided. Nevertheless, long-term adherence to medication for treating those diseases has been found to be poor. For example, despite the fact that pharmacological antihypertensive therapy reduces the risk of stroke and myocardial infarction, there is evidence that the majority of the patients treated for hypertension are non-adherent to their treatment regimen. Other representative examples include anti-diabetes and lipid-lowering therapies, which were found to significantly reduce the risk of ischemic events. Non-adherence to medicines has been observed to take many forms from simply forgetting to take a prescribed medicine on the necessary fixed points of time and substituting this by a later point of time, to forgetting to take a prescribed medicine at all, being the most common forms.

[0003] It is generally believed that with a consistent use of the medication as prescribed, the chances to a successful treatment of a disease can be increased and that many of the medical costs associated with medication nonadherence can be avoided. Closing the adherence gap is therefore considered important to the success of initiatives to improve the quality of health care, and is thought to have an impact that may be of similar importance ore even better than any improvement to specific medical treatments.

[0004] To assist a patient in improving his medication adherence, electric communication units have been developed, in a practical example the electric communication unit takes the form of a wearable, in other words a patch to be placed on a person's skin,

[0005] Aided by the increased processing speed of chips, capacity of batteries and precision of sensor technologies, nowadays wearable devices are becoming smaller, faster and more feature heavy, nearly replacing entire electronic categories in the process and furthermore impacting the way we live, work and socialize. Unlike traditional consumer electronics, wearable devices are in physical contact with their users up to 24 hours a day or sometimes, whenever they are equipped with biosensors such as CGM (Continuous Glucose Monitoring) sensors, for considerably longer periods of time. Such wearable devices interface with the body and therefore need to be designed for long term skin contact. In case they are equipped with bio-sensors they need to also ensure the reliability of that skin contact under a variety of real life circumstances. Whilst adhesive patches are often called upon to provide the required level of reliability of skin and/or subdermal contact, they pose an additional challenge: i.e. they need to be replaced every so often as the adhesive loses its function over time. Each replacement of the adhesive patch involves loss of the sometimes costly wearable and/or sensor. Finding techniques which would permit the wearable and/or sensor to be recovered from the adhesive patch for future reuse, ease of removal and re-assembly from the adhesive patch as well as ensuring the reliability of the contact with the skin and/or subdermal skin layers are just a few of the challenges to be met in case a wearable and/or sensor is to make contact with the skin by means of an adhesive patch.

[0006] WO2005/119610 discloses an electric communication unit, which comprises an ASIC (Application Specific Integrated Circuit), which is positioned on a support element and connected with a power supply, a receiver-antenna and body contacts. A cover consisting of a thin flexible synthetic material is used to protect all fragile electronic components against external influences. A pulse generator is provided for generating and transmitting a series of pulses to the body contacts in the patch upon receipt of a first signal. The body contacts transmit the series of pulses onto the skin of said person. The pulse generator further comprises a processing unit for storing a second signal, which comprises data indicative at which time said first signal should be generated, and for generating and transmitting the first signal to the pulse generator. An electric communication unit of this kind is capable of improving medication adherence because the patient is alerted by the pulses on the skin, that he or she has to take his or her medicine.

[0007] The adhesive patch with electric communication unit disclosed in WO2005/119610 can be applied on the skin of the patient or on the skin of another person. It is thus not necessary for the patient to wear the electric communication unit. An adhesive on the bottom side of the support element permits to position and stick the patch on the skin. A liner protects the adhesive of a not-yet used patch. The electric communication unit may further comprise an area on which a drug is adsorbed, in which case the electric communication unit may be used as a transdermal patch.

[0008] However, because the patch is adhered to the skin, it will be subjected to the conditions encountered by the skin, e.g. it will be contacted with water and detergent for example during showering, it will be subjected

to movement and to mechanical forces exerted by the clothing. These conditions have been found to limit the lifetime of the adhesive to several days the number of which may vary between different users, and generally lasts for about a maximum of about 5-10 days, often about a week. Although the electronics part and the power source contained therein may have a much longer lifetime, the patch will need replacement because the adhesive strength is becoming insufficient.

[0009] When analyzing the disadvantages associated with the known patch, the inventors observed that the patch usually will need to be exchanged because the carrier does no longer adhere to the skin, substantially before the lifetime of the electronics part and the power source has been exceeded. Therefore, the cost of the electronics part and power source determine the cost of the patch.

[0010] The inventors have therefore sought for a solution to increase the lifetime of the patch and that way make it available for use by a broader public.

[0011] WO2015/048298 discloses a remote physiological sensing device, comprising a holder, first and second electrodes coupled with the holder and an electronics package removably coupled with the holder and in electrical contact with the first and second electrodes via the holder. The electronics package includes a housing, a wireless transceiver and electronic circuitry configured to process signals received via the first and second electrodes and the wireless transceiver.

[0012] The electronics package may be personalized for a use by a user, and may be removed from the disposable holder and then reinserted into a replacement holder or patch. The sensing unit may be coupled to a patient's chest or any other suitable portion of the patient's body, such as the patient's arm or thigh, using an adhesive or any other suitable mechanism, such as a strap. Alternatively, the sensing unit may be coupled to or integral with a garment configured to be worn by the patient, for example, a belt, a wristband, a headband, an armband, shorts, pants, and/or the like.

[0013] The first and second electrodes are integrally formed with the holder or patch and may be disposable therewith. The holder or patch may include a battery.

[0014] In the device disclosed in WO2015/048298, the holder has the function of housing the battery and ensuring electric contact between the electrodes and the electronics package. Skin contact of the device is ensured by the electrodes. Since the electrodes are applied to a skin contact side of the holder, contact between the holder and the skin of the wearer may not be optimal.

[0015] The present invention therefore seeks to provide a solution to prolong the use time of at least the electronics part contained in the patch and maximizing ease of replacement of the pastille across the demographics of the chronically ill, without adversely affecting the reliability of skin contact of the relevant parts of the patch.

[0016] This is achieved according to the present invention with an electric communication unit, which shows the technical features of the characterizing portion of the first claim.

[0017] Thereto the electric communication unit of this invention is characterized in that the patch comprises a first patch part with a housing for the tactile signal generator and a second patch part with a recess for receiving the first patch part, which second recess is arranged for permitting at least part of the first patch part to contact the skin when the electric communication unit is applied to the skin, wherein the first and second patch part are provided to be releasably connected to each other, wherein the first patch part comprises a first connecting member for releasably connecting to a corresponding second connecting member on a side of the second patch part provided to contact the skin, wherein the second patch part further comprises on the side provided to contact the skin a skin connecting area for adhering the second patch part to the skin.

[0018] To adhere the electric communication unit to the skin, in particular to adhere the second patch part to the skin, at least part of the second patch part may on the side provided to contact the skin, be coated with at least one adhesive. As an alternative, it may be provided to apply the adhesive to the second patch part or to the skin separately.

[0019] In the electric communication unit of this invention, the first and the second patch part are made as separate elements. The second patch part functions as the attachment member for simultaneously attaching the first and the second patch part to the skin and ensuring optimal skin contact of the first patch part. Because the first patch part containing the tactile signal generator is releasably connectible to the second patch part, the second patch part can be exchanged independently of the first patch part. Or in other words, the first patch part containing the tactile signal generator may be used and re-used with different second patch parts, and the second patch parts may be exchanged each time when necessary to ensure a proper attachment of the first patch part to the skin.

[0020] By dividing the electric communication unit of this invention into two parts, each part can be used during its own lifetime, independently of the other part. This is an advantage, as it permits using the tactile signal generator for a longer period of time than that provided by the first patch part and in that way reduce the cost per use or usage cost of the tactile signal generator, because the more expensive part containing the electronics has a much longer lifetime than the adhesive part. This cost reduction is important as it may lower the threshold/barrier to the use of such communication unit by a broader public.

[0021] The division of the electric communication unit of this invention into two parts presents the advantage that skin contact of the first patch part which contains the tactile signal generator may be intensified and improved, and that the risk that a pulse would not be observed by

the person wearing it may be minimized. This is due to the fact that the second patch part is adhered to both the skin along the skin connecting area on the second patch part and to the first patch part, on the same skin connecting side of the second patch part, by the co-operating first connecting member on the first patch part and the second connecting member on the second patch part.

[0022] The connection between the first and second patch part prevents the first patch part from moving with respect to the second patch part and the skin. In addition, because the second connecting member for connecting the second patch part to the first patch part and the skin connecting area on the second patch part, are located on the same side of the second patch part, in particular the side which is provided to contact the skin, the first patch part comprising the tactile signal generator is drawn towards the skin and a more tight skin contact by the first patch part may be ensured. Thus, the risk that the electronics part would not contact the skin and that the tactile signal generated by it would not be sensed by the person wearing the electric communication unit may be reduced to a minimum.

[0023] The first patch part may take any form considered suitable by the skilled person, but preferably the first patch part takes the form of a tablet or pastille having the electronics parts, the power source and the body contacts and all other electronics components needed for generating the pulses incorporated in it. In another preferred embodiment, the first patch part is mainly dome-shaped.

[0024] Similarly, the recess in the second patch part for receiving the first patch part may take any form considered suitable by the skilled person, as long as it is capable of housing the first patch part. The recess in the second patch part may for example comprise a cup or a cavity formed in the material of the second patch part, but preferably the recess comprises a cut out in the second patch part. Usually the recess in the second patch part will have a shape, which is adapted to the shape of the first patch part.

[0025] The second patch part may be made of a wide variety of materials, and in a preferred embodiment the nature of the material may vary with the size of the second patch part. Whereas larger sized second patch parts will advantageously be made of a flexible material, smaller sized second patch parts, which for example approximate a point contact, may be made of a more rigid material. The second patch part may for example be made as a bandage, which comprises a sheet of a patch carrier, for example a woven or non woven fabric, a plastic strip or a latex strip, or any other type of strip considered suitable by the skilled person.

[0026] In a preferred embodiment, the side of the bandage provided to contact the skin is coated with an adhesive. According to another preferred embodiment, the adhesive is provided to be applied to the skin or the bandage separately. In still a further preferred embodiment, one or more drugs are incorporated (API) in the adhesive. Such adhesive bandages are well known to the skilled person. Also the broad public is very well capable of applying such adhesive bandages to the skin in the appropriate manner.

[0027] The invention is further illustrated in the accompanying figures and description of the figures below.

Figure 1 shows a cross section of an electric communication unit of this invention. Figure 1a shows an enlarged view of a part of figure 1.

Figure 2a and 2b show a view to a bottom side of a second patch part of this invention, provided to contact the skin, for two different types of patches.

Figure 3 shows a view to the top side of the second patch part.

Figure 4 shows a cross section of the electric communication unit of this invention.

Figure 5 shows a view to the bottom side of the electric communication unit of this invention having liners attached thereto.

[0028] The electric communication unit shown in figure 1 has the form of an adhesive patch, which comprises a first patch part 1 and a second patch part 2.

[0029] The first patch 1 comprises a housing 15 for the tactile signal generator, or in other words a housing for the electric communication unit for generating the tactile signal. The housing 15 of the first patch part may take any form considered suitable by the skilled person. The housing 15 may be mainly rounded, or have a more cubic shape or any other suitable shape. Preferably the housing 15 and the first patch part take the form of a rounded pastille, a rounded tablet or a rounded disc, in a particularly preferred embodiment the first patch part may for example be dome shaped. The housing may be a closed housing, or it may be accessible for example to permit replacing of the power source or the battery.

[0030] The housing 15 comprises a bottom side 14, which is provided to contact the skin in the mounted state of the electric communication unit. In a preferred embodiment, the electric components are arranged in the housing 15 in such a way that the bottom side 14 is substantially flat, to ensure optimum skin contact with the majority of the bottom side 14. The first patch part 1 further comprises a first connecting member 10 with which it may be releasably connected to a corresponding second connecting member 11 on the second patch part 2. The first connecting member 10 preferably extends along at least part of the circumference of the housing 15.

[0031] The tactile signal generator may for example comprise an electric communication unit comprising a support element for a series of body contacts, a pulse generator connected to the series of body contacts and being provided for generating an electric signal for example in the form of a series of pulses upon receipt of a first signal and for transmitting the series of pulses to said series of the body contacts. The body contacts are provided to transmit the pulses to the skin of the person

wearing the electric communication unit. The electric communication unit will generally also comprise a power source or supply or battery connected to the pulse generator. In a preferred embodiment the battery may be replaceable or rechargeable. The pulse generator may further comprise a processing unit with a memory, the processing unit being provided to store a second signal, wherein the second signal comprises data indicative at which time said first signal should be generated. The processing unit is also provided to transmit the first signal to the pulse generator. However any other suitable electric communication unit, capable of generating a recurrent tactile signal at the desired points of time may be used.

[0032] The tactile signal produced by the first patch part 1 may be any signal considered suitable by the skilled person. The tactile signal may for example take the form of electric pulses, vibrations, temperature changes, every stimulus implying senses of a human or mammalian, in a continuous, interrupted or periodic manner. The tactile signal is preferably a signal, which is generated in an interrupted or periodic manner, more preferably in a periodic manner, for example every two hours or every four hours or any other recurrent points of time during the day and/or night. The tactile signal may be generated in the form of a single pulse, a series of pulses, but also as a series of bursts wherein each burst comprises a set of pulses, subsequent bursts being spaced apart in time. Within the scope of this invention, the tactile signal is meant to include a signal, which may be detected by the skin. In a preferred embodiment, tactile signals do not include signals which generate a motoric response from the person wearing the electric communication unit.

[0033] In a preferred embodiment the electric communication unit, in particular the first patch part 1 comprises a detector for detecting adhesion of the first patch part 1 to the skin. Detection of skin adhesion of the first patch part 1 may trigger generation of the second signal, which will in turn trigger generation of the first signal.

[0034] The first connecting member 10 on the first patch part 1 for connecting the first patch part 1 to the second patch part 2 may take any form considered suitable by the skilled person. In a preferred embodiment, the first connecting member 10 takes the form of a circumferential edge or flange, which surrounds and protrudes from the first patch part 1. The flange may be continuous and surrounding the entire circumference of the first patch part 1, it may for example take the form of a circumferential flange, which protrudes from the housing 15 of the first patch part 1. The flange 10 may also be interrupted, for example at regular intervals and for example take the form of a toothed edge. It may extend along the entire circumference of the first patch part or along part of the circumference only. The first connecting member 10 may however take any other form considered suitable by the skilled person.

[0035] A side of the flange 10 facing the second patch 2 part may comprise means for connecting the first patch part 1 along the flange 10 to a corresponding second connecting member 11 on the second patch part 2. The connecting means may for example comprise mechanic connecting means, which are provided to co-operate with corresponding mechanic connecting means on the second patch part, for example engaging teeth and hooks. In an embodiment, the connecting means just comprise the material of the flange.

[0036] In the electric communication unit of this invention, the second patch part 2 functions as a carrier for the first patch part 1. In general all electric components of the tactile signal generator will be incorporated into the first patch part 1, the second patch part will function as a carrier for the first patch part 1 and as a fastening member for adhering the first patch part 1 to the skin of the person wearing the electric communication unit of this invention.

[0037] As can be seen from figure 1, the second patch part 2 comprises a carrier 4. In a preferred embodiment carrier 4 takes the form of a bandage, in particular an adhesive bandage, which may comprise a sheet, which may be coated with an adhesive 12 on a skin facing side. In a particularly preferred embodiment of a medicinal transdermal patch, the adhesive may contain one or more drugs (API).

[0038] According to another embodiment, carrier 4 comprises a sheet, which does not contain an adhesive 12 on a skin facing side and in that case the adhesive may be applied separately. As an adhesive, any adhesive considered suitable by the skilled person to adhere a bandage to the skin, may be used. In a particularly preferred embodiment of a medicinal transdermal patch, the adhesive may contain one or more drugs (API).

[0039] The sheet may be made of a wide variety of materials and may for example comprise a sheet of a woven or non woven fabric, a braiding or knitting, a plastic strip, a paper strip or a latex strip or any equivalent material considered suitable by the skilled person.

[0040] The second patch part 2 is preferably made in such a way that it is capable of accommodating at least one first patch part 1 and of attaching the at least one first patch part 1 to the skin of the person wearing the electric communication unit in such a way that an optimal transfer of the tactile signal to the skin may be guaranteed. The second patch part 2 may be made to accommodate one single first patch part 1 or several of such first patch parts 1. To achieve this, the second patch part 2 provides on a side provided to face the skin, at least one recess or cavity 3 for receiving the at least one first patch part 1 to permit a direct contact between the first patch part 1 and the skin (see figure 3). According to another embodiment, the second patch part 2 may contain one or more recesses or cavities 3 for receiving one or more first patch parts. Although a protective sheet of material may be present within the second patch part 2 at the position of the recess or cavity 3, the presence of a material layer between the skin and the first patch part may risk to reduce tactile signal intensity. According to a

particularly preferred embodiment, the recess or cavity takes the form of a cut-out 3 and the second patch part 2 comprises at least one cut out 3 in the second patch part 2 for accommodating the first patch part 1. Depending on whether a single first patch part is to be accommodated in the second patch part, or two or more first patch parts 1, the cut-out 3 will be made as one single part or it may contain two or more parts which are separated from each other by a separating member 16, as is shown in figure 2b.

[0041] The second patch part 2 comprises a second connecting member 11 for connecting the first patch part 1 to the second patch part 2 (see figure 1). This may for example be achieved by providing on a side of the second patch part 2 which is provided to contact the skin, in circumferential direction around the recess 3, a first area 11 with a first connecting member for attaching to the corresponding connecting member on the first patch part 1. This second connecting member 11 may be any material considered suitable by the skilled person, but is preferably a layer of an adhesive 11 on the side of the second patch part 2 facing the skin and the corresponding first connecting member 10 on the first patch part 1.

[0042] According to another preferred embodiment, the second connecting member 11 comprises a ring, which conforms to the shape of the recess 3 or cavity 3 for receiving the first patch part, wherein both opposite sides of the ring are coated with an adhesive (see figure 1a). An example of such a ring is a double-sided adhesive tape, having a first type of adhesive 21 on a first side and a second type of adhesive 22 on the opposite second side as is shown in the detail in figure 1a. The first and second adhesive 21, 22 may be the same or different, but preferably they are different as is described below. If so desired, the first and second adhesive may be carried on opposite sides of a carrier 20, but the presence of such a carrier is not imperative.

[0043] The side of the second patch part 2 which is provided to contact the skin, further comprises in circumferential direction of the recess 3, a second area 12 with third connecting means 13for attaching the second patch part to the skin. These third connecting means 13 preferably comprise a layer of a second adhesive. The third connecting means 13 may be located towards an outer part of the second patch part relative to the second connecting member 11. Depending on the envisaged use, either the whole skin contact area of the second area 12 may be provided with an adhesive, or a part of that area only. In a preferred embodiment third connecting means 13 may comprise alternating areas which are not coated with adhesive, areas coated with adhesive, and areas coated with a drug.

[0044] In order to ensure proper adhesion of the first patch part 1 to the second patch part 2, first and second connecting member 10, 11 with which the first patch part 1 is adhered to second patch part 2 will preferably be chosen such that the adhesion strength of the first patch part 1 to second connecting member 11 is lower than the adhesion strength of connecting member 11 to the second patch part 2. This will facilitate removing the communication unit in its entirety from the skin, i.e. the first and second patch part all together. After the communication unit has been removed from the skin in its entirety, the first 1 and second 2 patch part may be separated from each other.

[0045] Where use is made of an adhesive as second connecting member 11, the adhesive 11 will generally be applied according to a certain pattern, which corresponds to the form of the corresponding first connecting member, e.g. flange 10, on the first patch part 1. The adhesive 11 may be applied as a continuous band, or it may be applied in discrete parts. If so desired, flange 10 may as well be at least partially coated with an adhesive.

[0046] Within the scope of this invention, many adhesives may be used and the nature of the adhesive may be adapted by the skilled person taking into account the nature of the material of which the first and second patch part are made.

[0047] The second connecting member 11 is preferably positioned on a side of the second patch part 2, which faces the skin of the person wearing the electric communication unit, and the connecting member 10 of the first patch part is received between the second connecting member 11 and the skin. Due to this arrangement, in the connected state, the first patch part 1 is drawn to the skin of the person wearing it by the adhesive force of the second patch part 2. This is an advantage as the skin contact may be improved. Because all electric components are located in the first patch part, because the second patch part 2 exclusively functions as a fastening member for fastening the first patch part to the skin of the person wearing it and because the side of the second patch part provided for contacting the skin does not contain any protruding parts which would increase the distance to the skin, optimum skin contact may be guaranteed between both the first and the second patch part and the skin.

[0048] The second patch part 2 in fact functions as an attachment member for attaching the first patch part 1 to the skin of the person wearing the electric communication unit of this invention. Therefore, the second patch part 2 will usually take the form of an adhesive bandage, in particular an adhesive bandage which comprises an adhesive sheet, comprising a sheet of a woven or non-woven fabric, a plastic strip or a latex strip, and all electric components of the tactile signal generator will be incorporated into the first patch part 1. The side of the bandage which is provided to be adhered to the skin of the person wearing the electric communication unit of this invention, is at least partly coated with an adhesive. Suitable adhesives include acrylate based adhesives, in particular a methacrylate adhesive or an epoxy diacrylate. This type of adhesives is preferred for their skin compatibility and minimal risk to allergic reactions. The adhesive may be applied to the full area that is expected to contact the skin, or along part of that area only. Instead of an adhesive any other means for adhering the second patch part

to the skin may be used. Optionally, one or more drugs are incorporated in the adhesive.

[0049] As can be seen from figure 1, in the mounted state, the first patch part will adhere to a side of the second patch part, which faces the skin, and will occupy some space between the skin and the second patch part. The remainder of the second patch part 2 facing the skin will preferably adhere to the skin.

[0050] To protect the adhesive on the second patch part when not in use, the part of the second patch part 2 provided to be adhered to the first patch part is provided with at least one first liner 8 and the side of the second patch part provided to contact the skin is provided with at least one second liner 9, the second liner being provided for removal after the first liner 8 has been removed (see figure 5).

[0051] The present invention relates to the electric communication unit as described above. The present invention also relates to a kit comprising a plurality, for example 2, 3, 4 or 5 or more second patch parts 2 for each first patch part 1.

Claims

1. An electric communication unit in the form of an adhesive patch provided to be placed onto a person's skin, wherein the electric communication unit comprises a tactile signal generator (6) provided for generating tactile signals at certain points of time and for transmitting the tactile signals to the person's skin when placed thereon,
   characterized in that
   the patch comprises a first patch part (1) with a housing for the tactile signal generator and a second patch part (2) with a recess (3) for receiving the first patch part (1) and permitting at least part of the first patch part to contact the skin, wherein the first and second patch part (1, 2) are provided to be releasably connectable to each other, wherein the first patch part comprises a first connecting member (10) for releasably connecting to a corresponding second connecting member (11) on a side (13) of the second patch part provided to contact the skin, wherein the second patch part (2) further comprises on the side provided to contact the skin (13) a skin connecting area (12) for adhering the second patch part (2) to the skin.

2. An electric communication unit according to claim 1, wherein the first patch part (1) is at least partly surrounded by a circumferential edge (10) to provide the first connecting member for connecting the first patch part (1) to the second patch part (2).

3. An electric communication unit according to claim 1 or 2, wherein the first patch part (1) is mainly disc shaped.

4. An electric communication unit according to any of the previous claims, wherein the recess (3) in the second patch part (2) comprises a cut out in the second patch part (2).

5. An electric communication unit according to claim 4, wherein the cut out (3) comprises a first and a second part (21, 22), which are separated from each other by a separating member (16).

6. An electric communication unit according to any of the previous claims, wherein the first patch part (1) comprises a circumferential edge (10) which is provided to contact and to be connected to a corresponding circumferential edge (11) of the recess of the second patch part (2).

7. An electric communication unit according to any of the previous claims, wherein the second connecting means (12) on the second patch part (2) comprise a layer of an adhesive applied along at least part of the circumference of the recess (3).

8. An electric communication unit according to any of the previous claims, wherein the second patch part (2) is an adhesive bandage, preferably a transdermal adhesive bandage containing one or more drugs.

9. An electric communication unit according to claim 8, wherein the adhesive bandage comprises an adhesive sheet, comprising a sheet of a woven or non-woven fabric, a plastic strip, a paper strip or a latex strip.

10. An electric communication unit according to any of the previous claims, wherein the second patch part is a bandage which is provided to be adhered to the skin by means of an adhesive which is provided to be applied separately, preferably an adhesive containing one or more drugs.

11. An electric communication unit according to any one of the previous claims, wherein the part (11) of the second patch part provided to be adhered to the first patch part (10) is provided with a first liner and the side of the second patch part provided to contact the skin is provided with a second liner, the second liner being provided for removal after the first liner has been removed and the first patch part has been connected to the second patch part.

12. An electric communication unit according to any one of claims 1-11, wherein the first patch part comprises a detector for detecting adhesion of the first patch part (1) to the skin.

13. A kit comprising the electric communication unit according to any one of claims 1-12, and at least two,

preferably three, four or five or more, second patch parts (2) for adhering the first patch part to the skin of a person wearing the first patch part (1).

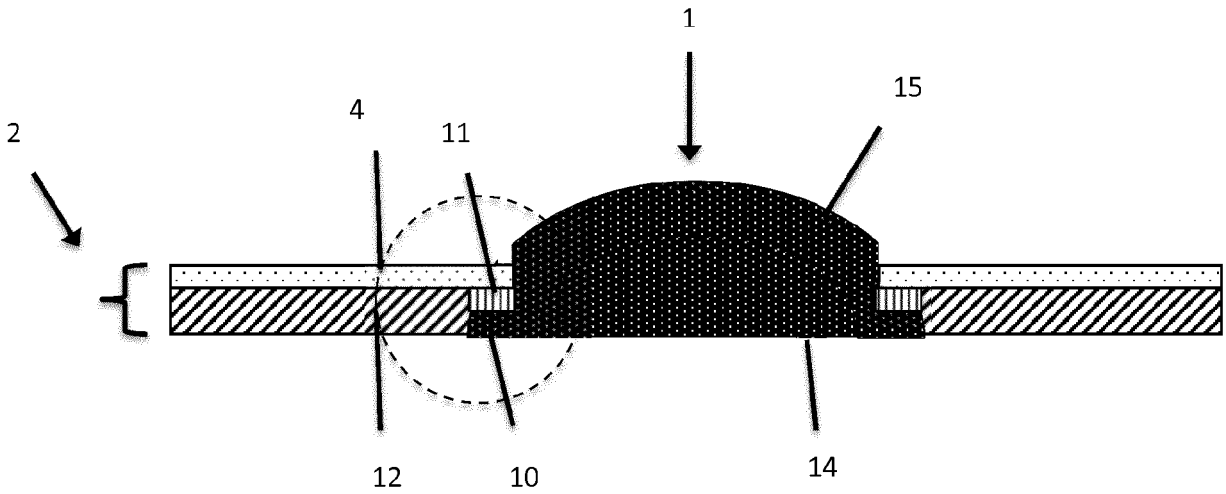


Figure 1

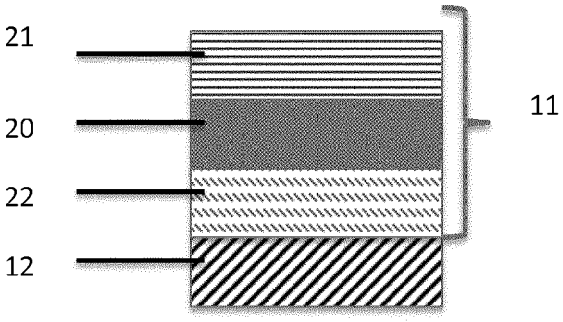


Figure 1a

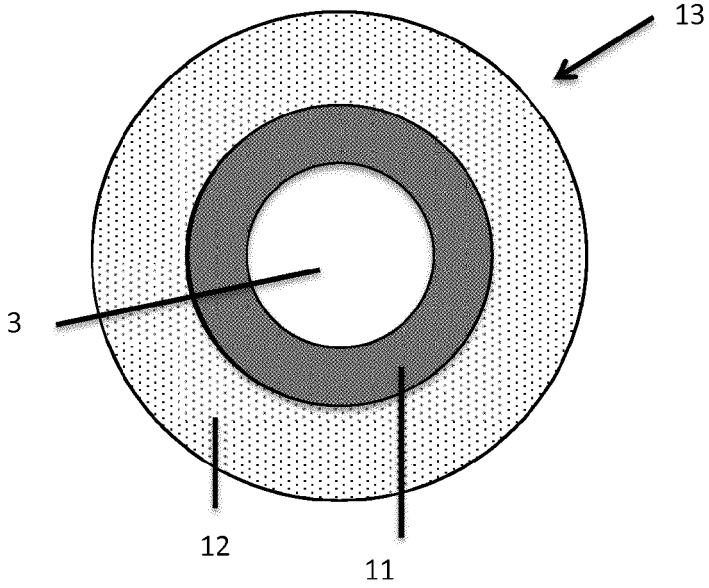


Figure 2a

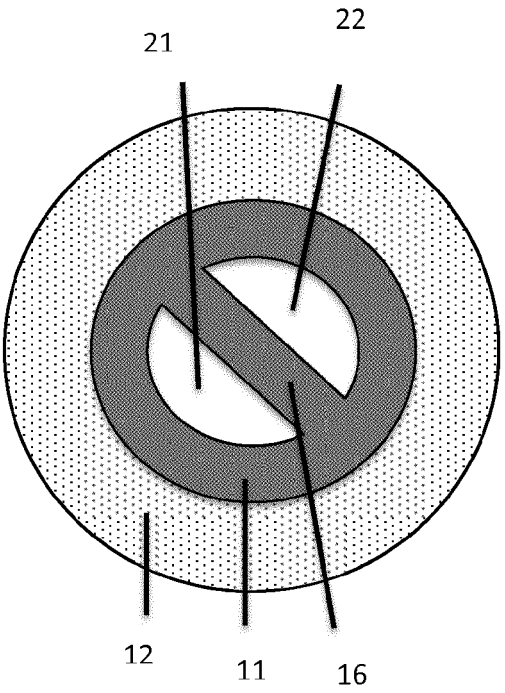


Figure 2b

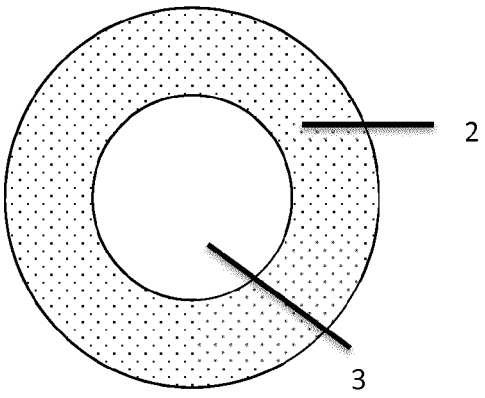


Figure 3

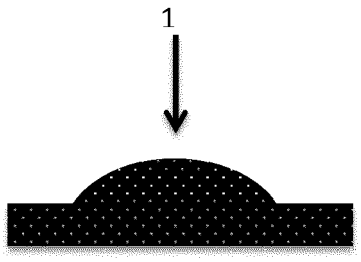


Figure 4

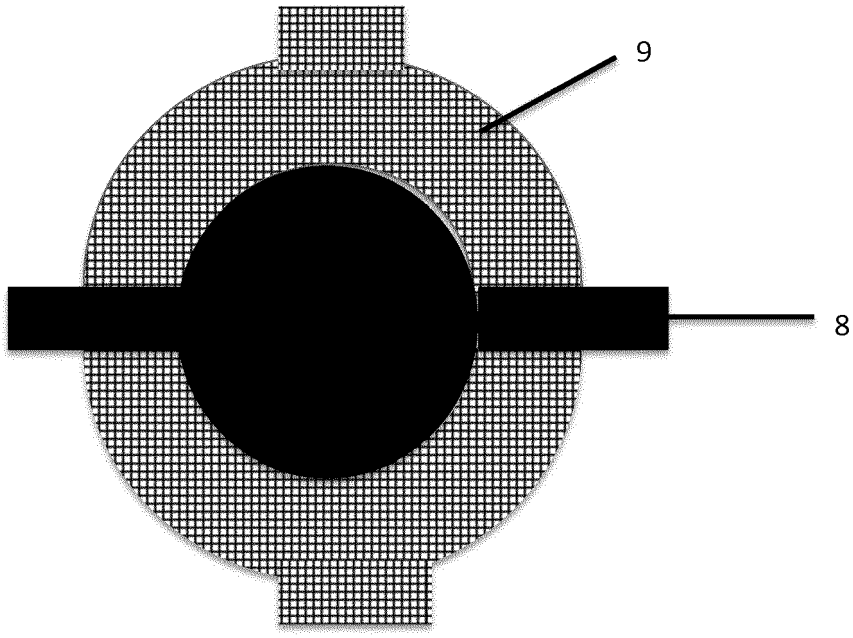


Figure 5

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EUROPEAN SEARCH REPORT

Application Number
EP 16 18 5995

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	2 February 2017	Plathner, B

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